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Original Department.

Lecture.

SOME MORBID CONDITIONS OF THE URINE.

BY DR. F. W. PAVY, F.R.S., OF LONDON. [1]

I must first of all express the honor I feel in being invited to meet with you this evening, and next to apologize for impairment of voice due to cold, and for being under the influence of fatigue from travel.

I am before you to say a few words upon certain morbid conditions of the urine, and my hope is that we may compare notes of observations in the old world with observations in the new world. I shall first of all refer to albumin. Albumin in the urine with us was formerly regarded as a matter of the most serious import, but we are now beginning to recognize that a certain amount of albumin in the urine is not always of grave import. My own practice lies very largely with urinary diseases, and patients coming under my care always have the urine examined by an analyst; and I am frequently meeting with a certain amount of albumin in the urine, without its presence being attended with anything that would lead me to suspect that a grave condition exists. In association with diabetes, it is not at all uncommon to find, when the patient first comes under observation, a certain amount of albumin in the urine; but when the patient is put under treatment for the diabetes, it is not infrequently found that the albumin disappears in the course of a few weeks. In these cases of albumin in the urine, we must look to the general condition of the patient to see whether or not there are other indications of the existence of grave renal disease.

There is another condition which I presume has been brought before the profession in America, in which albumin exists at a certain time of the day, and not at others. I have suggested for this condition the term *cyclic albuminuria*. I have studied these cases for some years past, and I should think that they occur in this country as well as in the old world. I know that they occur in Germany, for the matter has been taken up there and followed out. This condition is observed in persons who are excitable and of a nervous disposition, and as a rule in young persons, although I have met with some cases in the middle-aged. The albumin is to be met with at one time of the day and not at other times. These cases are recognized, as it were, only by accident. Sometimes the urine is examined on account of some pain in the loins, but most frequently these cases are discovered through examinations for life insurance purposes, or for some branch of the civil service, as is required by the Bank of England. So long as the individual maintains the recumbent posture, no albumin will be detected, but in one and a half or two hours after rising the maximum quantity of albumin will be found. As a rule, the quantity of albumin declines toward evening, and on going to bed it has entirely disappeared. Sometimes a trace of albumin is to be found in the afternoon and evening, but the first urine passed on rising in the

[1] An address delivered before the County Medical Society of Philadelphia, September 19, 1887.

morning contains no albumin whatever. These cases seen to be of no serious import. I suppose that the presence of albumin depends on the condition of the vessels. I suppose so, but certain it is that these cases are not associated with any constitutional condition. I now come across quite a large number of them.

I shall next refer to *sugar in the urine.* This is another morbid element which has varying degrees of importance. In young persons it is of the gravest import, while in elderly persons it is not so serious. In early life I have known cases to go on for years, but this is the exception; the usual duration is about two years. Ultimately they all terminate unsatisfactorily. After the middle period of life, however, sugar in the urine has a very different significance. In young subjects we have a disease which seems to be of a progressive nature. Notwithstanding whatever we may do for it, there is something which insidiously progresses in the system and leads ultimately to a fatal termination. But after the middle period of life a good deal depends upon the patient himself. Under proper management the disease may, as a rule, be held under control and the patient live for years in a satisfactory condition, but to accomplish this, rigid measures of treatment must be carried out.

One may express in a very few words, and without advocating any idea or theory, the precise nature of *diabetes mellitus*, or sugar in the urine. I should speak of it as a defective or faulty assimilative action—a faulty chemistry. The elements of the food which we take undergo chemical change in the system, by which they are rendered useful. A certain group of principles entering largely into the composition of our food is the carbohydrates. These principles in diabetes do not undergo their proper chemical change and thus become eliminated from the system. What do we observe in a state of health? A person takes one of the carbohydrate group, it makes no difference which—starch, grape sugar, cane sugar, dextrine, or sugar of milk—they all behave alike in the system, and it is so changed as to be rendered subservient to the requirements of the system. In a state of health, we see nothing more of them. Not so in diabetes. In the diabetic these carbohydrates are no longer consumed. There is a faulty disposal of them. Received into the alimentary canal and afterward absorbed, they do not undergo their proper transformation, but pass off from the system in the form of sugar in the urine; so that I say, looking at these two conditions, a condition of health and a condition of diabetes, we may describe diabetes as a faulty disposal—a faulty transformation or assimilation of the carbohydrate elements of our food. In diabetes, in proportion as these carbohydrates are taken, so will be the amount of sugar in the urine. This I can say without any hesitation whatever.

In order to follow a case of diabetes satisfactorily, I consider that a quantitative examination of the urine should be made, and, for myself, I feel quite in the dark as to the progress of a case unless I have this quantitative examination. In my own practice, I keep an analyst who examines the urine of patients—a night and morning specimen—and directly I get the analytical report, I can read off exactly the condition I have to deal with. Without this, I should be perfectly in the dark as regards the progress or the severity of the case. It does not do to rely on the specific gravity. I have met with a specific gravity of 1040, without any sugar in the urine. Medical men are often concerned over the specific gravity of the urine. The patient may have been put under treatment, but still the specific gravity keeps up to 1032 or 1035, although the urine is free from sugar. Under these circumstances, I say to the medical practitioner—do not concern yourself with the specific gravity. If the urine is free from sugar, the high specific gravity is a favorable sign, as showing that the kidneys are equal to good work. If the kidneys were diseased, there would be a low specific gravity. The high specific gravity may be kept up by the passage of only a limited quantity of water, and by the nitrogenous diet which the patient is taking adding to the elimination of urea. On the other hand, a low specific gravity may sometimes be met with where there is a considerable quantity of sugar in the urine. I have met with a specific gravity of 1009 or 1010, and yet the urine contained a considerable quantity of sugar. These have been mixed cases of diabetes insipidus and diabetes mellitus. They are proved to be mixed cases by the fact that when the patient is put under proper dietetic treatment, the sugar disappears, but the quantity of urine keeps up. I myself do not attach so much importance to the specific gravity as is done by certain medical men.

In testing the urine for sugar, my opinion is that the copper test is by far the best. We all know that Fehling's solution is the test generally employed, but there is this disadvantage about Fehling's solution, it does not keep well; after being kept some time, it

throws down a precipitate without the presence of sugar. This has led to many mistakes in diagnosis. I have frequently had patients sent to me with the statement that they were suffering with diabetes mellitus, when the only trouble was that a faulty Fehling's solution had been employed. Some years ago, I directed my attention to the question whether or not the ingredients of the Fehling's test could not be put together in the form of a pellet, and the solution be made as required. Certain difficulties were experienced at the outset, but these have been overcome. The pellets, as now made, consist of sulphate of copper in the anhydrous form, Rochelle salt and potash. It is necessary to separate the sulphate of copper from the potash. This is done by first putting in the die sulphate of copper, then a little Rochelle salt, next the potash, and finally more Rochelle salt. The pellet, after being made, is surrounded with waxed paper and kept in a well-stoppered bottle. If properly prepared and handled with care, the cork not being left out of the bottle, these pellets will keep indefinitely. There is this advantage about the pellet—it will never deceive you, for if it is allowed to absorb moisture, it at once becomes unfit for use, the oxide of copper being thrown down in the form of a black precipitate.

In the treatment of diabetes, I attach the greatest importance to diet. I do not consider that you can get on with the management of these cases unless you exclude as far as possible these principles of which there is a faulty assimilation. If sugar appears in the urine, it must previously have existed in the blood. I know from frequent examinations that the blood contains a trace of sugar, which may be represented in figures as from 0.5 to 0.8 part per 1000. In harmony with this condition of the blood, there has been a trace of sugar in the urine.

The ammonio-cupric test is the one I employ as a quantitative test. It consists of Fehling's solution with the addition of ammonia. With the Fehling's solution there is, on the addition of saccharine urine, a precipitate of the suboxide of copper, and for quantitative purposes, this precipitate interferes with the determination of the exact time when complete reduction has taken place. While the presence of ammonia does not interfere with the reduction, it keeps the reduced suboxide in solution, and we get the decoloration withqut the formation of any precipitate whatever. The addition of ammonia gives a more intense blue color to the Fehling's solution, and this is brought by the reduction to the color of water without the formation of any precipitate. With the apparatus in perfect order, the quantitative determination can be made in two or three minutes. This test is so delicate that ordinarily, to perform it satisfactorily, you have to dilute the urine 1:20, and where it contains much sugar, 1:40. I usually determine the proportion of sugar per thousand of urine, but if it is desired to determine the number of grains per ounce, this can be done by multiplying the quantity per thousand by 0.4375.

In examining the urine of a diabetic, I generally desire that a night and morning specimen be brought. When a person lives as people ordinarily live in England—that is to say, taking a meal on rising in the morning, breakfast; a meal in the middle of the day, lunch; and a meal in the early part of the evening, dinner—the urine passed on going to bed contains considerably more sugar than the urine passed in the morning. When a person dines in the middle of the day and sups shortly before going to bed, then the conditions are reversed—there is less sugar in the night water than in the morning water. Over and over again, by the quantitative examination of the urine, I have detected errors of diet where the patients have had the greatest desire to keep to what was right. A person who has been passing only a little sugar, brings a specimen which contains a large quantity of sugar. Under such circumstances we must look for some error in the preceding meal. In one case this proved to be blanc-mange which had been made with corn flour. Blanc-mange for the diabetic should be made with cream and gelatine or isinglass. In another case a patient had been passing very little sugar, when suddenly the quantity increased. Careful questioning revealed no error in diet, until it was learned that the patient had substituted for the bran biscuits which he had been using, others said to be "just as good," which examination showed to be made of the whole meal. I refer to these cases to show the value of the quantitative analysis.

In the treatment of these cases, the excluclusion of the carbohydrate elements of the food should be as complete as possible. In the case of a person in the middle period of life, I first put the patient upon a strict diet. Very often the sugar for a time lingers in the urine. It is materially diminished, but has not disappeared. I may also say that I have, in addition, recourse to opium, codeia, or morphia, for I believe that these drugs have an important influence in controlling the disease; or, to put it in other words, they re-

store the assimilative power. Certain it is that under the influence of these drugs and strict diet, sugar after a time diappears from the urine; and after the urine is kept free from sugar for a few months, I find that the individual has a certain amount of assimilative power over the starch of bread. I test this by giving him a couple ounces of bread. Frequently there is no reappearance of sugar. If there is no return after this has been continued two or three weeks, I increase the quantity to three ounces per diem. Then, if there is no return, to four and one-half ounces; and, finally, to six ounces. Then the person is in the position of a small bread eater. I recommend patients to be content with that. They can very well give up potatoes and sugar, but to give up bread is a serious matter with many people. When a person can take six ounces of bread per diem, he is not in an unfavorable condition. Many of these persons can continue to take this quantity of bread with no return of sugar in the urine. If, however, they go further and resume their ordinary diet, there will be a reappearance of sugar. The urine must be taken as the guide. Treating the case in this way, my experience is that, after the middle period of life, these patients do exceedingly well.

I must apologize, Mr. President, for the crudeness of these remarks, for I have had no time for preparation. I thank you most heartily for the attention which you have given me. I cannot close without thanking you and your countrymen for the cordial reception given to myself and my confrères by everyone with whom we have come in contact.

AN UNRECOGNIZED CAUSE OF MANY THROAT AILMENTS.

BY MR. LENNOX BROWNE, F.R.C.S., LONDON.[1]

In accepting the very flattering invitation of your President to speak a few words to the members of the Philadelphia County Medical Society, it appeared to me both more becoming and more profitable to offer you some practical remarks explaining the *rationale* of some of the commoner throat ailments, than to attempt to magnify the office of the laryngoscope by the relation of rare and wonderful cases. I was the more inclined to this view because I was well aware that, through the assiduous industry and well-known skill of your President, and other members of your Society, you have for some years been kept thoroughly posted in all that is new in laryngology.

It is now some ten years since first I sought an objective explanation of the condition known as *globus hystericus*, and since I commenced to make a systematic examination with the laryngoscope of every patient who came to me with this symptom. The result was communicated in a paper to the Congress of Laryngologists held at Milan in 1880. I found that but very few cases indeed are of an hysterical character—that is, of the nature of a phantom sensation—though uterine or ovarian disorder is a not infrequent predisponent, or, at least, concomitant of the throat condition in the female sex.

Extending the term *globus hystericus*, I find that, with hardly an exception, all and every other subjective sensation in the throat is symptomatic of an objective cause. The chief of such feelings are those of a heat, a prickling, a swelling, a weight, a straw, a hair, or other foreign body. A few patients—one especially, a hale farmer—have complained of a feeling of intense cold, which is sometimes relieved, sometimes aggravated, after food-taking. In some instances there is actual pain, with spasm, cramp, and a sensation of choking, and not infrequently there is cough; this symptom varies in degree from a slight hacking, to the loud hyæna-like bark known as nervous laryngeal cough. Many of the cases of so-called laryngeal vertigo, or, as I prefer to call it, of laryngeal epileptiform seizures, are capable of explanation and cure, on the lines I am at present taking.

On examination of the throat of a patient with symptoms such as I have described, one may or may not see chronic congestion and relaxation of the fauces and uvula, enlargement of the tonsils or obstruction by caseated material of the orifices of the crypts, granular pharyngitis, or even laryngeal hyperæmia. Where any one of these conditions is present, treatment thereof may or may not give relief; but none of them represents the class to which I would draw your attention, namely, that in which there is no generally recognized morbid state of local significance.

The results of laryngoscopic investigations in my hands have shown that there is:

1. A varicose, and even truly hemorrhoidal condition of the veins at the base of the dorsum of the tongue, sometimes at the under surface and sides, in which last case it may be symptomatic of mitral insufficiency, or of severe hepatic derangement, or even of cerebral lesion. There is often a similar varicose state of the vessels in the superior surface of the epiglottis.

[1] An address delivered before the Philadelphia County Medical Society, September 19, 1887.

2. An enlargement of the circumvallate papillæ at the back of the tongue, causing the epiglottis to be hindered in its movements—imprisoned, as your President first called it.

Just drawing attention to the fact that the structure of these glands is very similar to that of the tonsils, I may mention that in a few instances I have seen actual blocking of the orifices, similar to the condition known generally as chronic follicular tonsillitis.

I may also note that it is not possible to see these things either with a tongue depressor or in the laryngeal mirror as ordinarily employed. Many observers, especially beginners, seem to consider that their sole aim is to see the vocal cords, and, if these are sound, they write down, "larynx normal;" but they omit to look well to the frame-work. To see this condition of lingual varix and glandular hypertrophy, the mirror must be placed quite high up in the throat.

Where, as is often the case, there is no actual or noticeable enlargement of the thyroid gland, it will be observed, on passing the hand gently over the front of the throat, that there is a distinct fulness of the thyroid isthmus. If the least pressure be made at this situation, the patient—not necessarily a female—will complain that the abnormal sensation is at once excited, and, on being questioned, will admit that when it occurs the collar is felt to be too tight for the neck.

Inquiring into the general health, and happily failing to find any of the more serious lesions to which I have alluded, it will be noted that habitual constipation and a generally defective circulation are both frequent symptoms; while in others there will be concomitant evidences of a varicose diathesis, as rectal hemorrhoids, varicocele, or varicose veins of the extremities.

In females the menstrual flow is often morbidly frequent or excessive, and there are other evidences of an enfeebled vaso-motor control. Abuse of alcohol and tobacco are excitants of the condition; and in the cases of singers or public speakers, defective methods of filling the lungs—forcing the lower registers upward, or other functional fault which may lead to undue strain on the palato-pharyngeal muscles and engorgement of the vessels in this region—are fruitful predisponents.

In this connection, I may refer to the accurate explanation offered by your fellow-citizen, Dr. Carl Seiler, of the etiology and pathology of chronic pharyngitis when occurring to voice users.

Some of those obscure cases which come under our occasional notice, of the presence of small quantities of blood in the mouth, or of the taste thereof on rising from sleep, will be explained by the leakage of one or other of these enlarged and hemorrhoidal venous capillaries in the region now under consideration.

A few words as to treatment. If the case is not of long standing or of aggravated character, correction of the main constitutional cause—cessation of the faulty method of voice production, or prohibition of a vicious habit or indulgence—may be sufficient to effect a cure, but this is rarely the case. Of remedies, I give chalybeates and aperients with digitalis or ergot, as may be indicated. Locally, astringent applications, especially of chloride of zinc or perchloride of iron, are by no means without avail; they can be applied by the patient himself. Gargles as ordinarily employed are useless, and occasionally are productive of exacerbation of the symptoms. Not so if employed by the method known as that of Von Troeltsch. Of lozenges, I find those of muriate of ammonia much more active in leading to resolution of the venous congestion, than those of red gum, rhatany, etc.

Recent investigations show that the astringent properties of tannin have been exaggerated. Where the uvula is relaxed, the snipping of an elongated portion, especially if other functional or constitutional faults are corrected, may lead to a cure; but in a certain proportion of patients in which the promises of the specialist as to the good effects to be gained by the procedure are not realized, the cause of failure will be found in non-recognition of the varicose vessels. Treatment of these is best effected by the galvano-cautery point, and it is necessary to seal each individual enlarged vessel. For this purpose it may be necessary to make more than one application. Lastly, there is often a hyperæmic tumefaction of the vessels, glandules, and submucous tissues of the pharynx, naso-pharynx, and turbinated bodies; these will also be treated by galvano-cautery.

In conclusion, I would say that in case it may be objected that the conditions I have described are but representative of an advanced chronic congestion, I do not deny that such occasionally may be the case. In the majority, however, there are no such antecedents; and where the two exist, the practitioner will fail to cure his pharyngitis, or what not, until he has recognized and treated the varix.

And it is in this light that I have ventured to call attention to the subject as one that is not generally recognized, for beyond a short

communication at Milan by my deceased colleague, Llewelyn Thomas, I have seen no allusion to it in any books or archives, and no notice is taken of it by the great teachers of Vienna. I therefore make no apology for having occupied your time with considerations that may at first appear trivial, or of exaggerated importance.

COMMUNICATIONS.

ROMAN FEVER.

BY GREGORIO FEDELI, M. D., OF ROME.

Rome, the historic and monumental city, the seat of the fine arts, which in every age has attracted the admiration and interest of foreigners, paid little attention, under the old régime, to matters of cleanliness and decency. Nor was the science of public hygiene understood; for in those days there was little fear of this unhealthy locality. At present there is much uneasiness in the minds of travelers; and yet the improvements introduced have been such that the sanitary condition of Rome is second to that of no other city in the world.

A plentiful supply of pure water has been secured, and arrangements have been made for its diffusion in every part of the city. Drains have been enlarged and multiplied, and constructed in accordance with the regulations of modern science. New quarters of the city have been built, and vineyards, gardens and other hotbeds of disease have been destroyed. Wide streets have been opened across the city, the houses in unhealthy localities torn down, and arrangements made for the systematic cleansing of the public ways. There could scarcely fail, therefore, to be an improvement in the hygienic conditions of the city, and consequently in the health of its inhabitants. And then, what is to be said about the benefits resulting from the embankment of the Tiber? Would that it were possible to make that point understood.

Taking these facts into consideration, travelers ought to be re-assured as to the sanitary conditions of the city. Unhappily there are not a few who are not tranquilized. When they come to our city they tremble lest they should be attacked by illness, as if they were in a pestilential climate. If soon after their arrival they are disturbed by some trifling indisposition, immediately they think, "I have taken Roman fever!"

The idea that there exists an especial form of malarial disease, called "Roman fever," I believe has come to pass through the ignorance of foreign physicians practicing in Rome, who are ignorant of the clinical forms prevailing in our climate, and hence make erroneous diagnoses, and adopt wrong treatment, founded upon their respective national methods. Complications and aggravations in the malady follow, and often when the patient is going to die to the erroneous diagnosis of typhoid or typhus fever is added that of Roman fever, and just before death it is called *pernicious fever*. Thus has arisen a conception of an imaginary disease—Roman fever—a disease unknown to Roman physicians. This fact naturally aroused the attention of the scientific medical societies, and at various times they undertook to determine if such a disease as "Roman fever" exists.

The Roman Committee of the Italian Medical Association first discussed the subject, when its members were gathered together to deprecate the irregular admission of a group of foreign medical practitioners into the sanitary affairs of Rome. At this time the real causes of infectious diseases among strangers in Rome were stated with accuracy. These diseases are not due to their residence in Rome, where there exists no special or endemic malady which can be properly denominated Roman fever. Infectious typhoid fevers very rarely occur among the Roman population.

When the writer read before the Royal Medical Academy a paper on the "Therapeutic Properties of the Eucalyptus Globulus," he touched upon the dreaded climate of Rome, and upon the existence of the so-called Roman fever, which is so greatly feared and considered especially incidental to foreigners. The assembly applauded at this point, and in two subsequent sessions treated the interesting subject at large, looking upon it in all its bearings. The conclusion was reached that the general condition of health in Rome might be considered to be normal, and not inferior to that of other large cities, and that there exists no malady peculiar to the soil of Rome.

At the General Congress of the Italian Medical Association, held in Turin some years since, the conclusion was reached that the climate of Rome is one of the best among the principal cities of Europe.

In order to emphasize the assertion that Roman fever is a purely mythical idea, I would further affirm from my own personal knowledge that such a theory never entered

into the heads of the foreign physicians who practiced in Rome many years ago. And yet, at that epoch, Rome was not in as good hygienic condition as it is now. But the crowning proof of the salubrity of our city is the fact of its indemnity from cholera, even when the neighboring cities were seriously infected with this disease, and when a large number of emigrants were coming from these infected districts to Rome.

The climate of Rome has always been regarded as salubrious. Its mild temperature during the winter season is nevertheless subject to rapid changes dependent upon the character of the season—the prevalence of more or less rain; the relative humidity caused by the greater or less domination of the south and south-east winds, which suddenly succeed the dry winds from the north.

The atmosphere is clear and the sky blue; the sun warm, especially in the higher parts of the city, in the public walks, and in the country. Those who do not guard against the effect of such changes are readily attacked by colds, and then by fever of a rheumatic character; bronchial catarrh, pleurisy, pneumonia, catarrh of the digestive organs, subacute and also acute arthralgia, arthritis, etc. These forms of disease are also often complicated with malarial and sub-continuous fever, and these often degenerate into typhoid.

A large part of the strangers who come to our Italian metropolis arrive there in a suffering condition, either fatigued by the long journeys they have taken, or affected by the various changes of climate, lodging and method of life incident to their condition as travelers, and operating with greater force during the winter season. This being so, there is not always sufficient care to secure the needed rest, especially as they are anxious to see our historic city in the shortest possible time. So they rise early and set to work, paying little attention to their enfeebled condition.

Before leaving their hotel (and they frequently give preference to the cheapest) they fill their stomachs with coffee, tea and milk, bread and butter, eggs, etc.; and then, either in carriage or on foot they travel the city, visiting churches, museums, galleries, antiquities, etc., and constantly increasing their fatigue. They return to their hotel in the early afternoon heated, wearied, and perhaps also perspiring; and feeling the need of food they eat whatever is set before them, and drink quantities of water. And although our water is exceptionally pure, still I think that in our climate it is desirable to use wine with moderation. After the meal they exercise again until the approach of evening; that is to say until the sunset makes the air cooler and damper, and therefore especially to be avoided. Others do even worse. They do not return to their hotels for their midday meal, but when they find themselves tired and heated they enter the shops where fruit and other food is sold and eat with avidity. Others go to a café and satisfy their appetite with pastry and anything else which they may fancy, and then continue their excursions until the sun goes down.

It is impossible that such an incorrect and irregular mode of life, continued for a greater or less space of time, should fail to produce functional disorders. Ordinarily the digestive apparatus is the first to suffer; intestinal pain, diarrhœa, often dysentery, thirst, want of appetite and general discomfort are the first symptoms. In order to subdue these morbid manifestations, some people think it wise to use remedies and prescriptions which they have brought with them; or they go and consult an apothecary, asking for a remedy to stop diarrhœa. The apothecary satisfies their desires. giving them a medicine which he considers suitable. This remedy often calms the abdominal troubles, so that the sufferer, thinking himself cured, gives himself no further uneasiness and goes on with his excursions. But the improvement does not continue long. In a short time, with the increase of discomfort, fever preceded by chills is developed; there is aggravated diarrhœa and the stomach is swollen and sensitive to pressure; the tongue is reddish at the edges and coated with white fur; there are pains in the head, thirst, muscular pains, nausea in trying to take food, etc. In other cases there is added to the above mentioned symptoms, irritation and hyperæmia of the tonsils, bronchial catarrh and cough. These symptoms justify the diagnosis of rheumatic fever, rheumatic gastric fever, or enteric fever; or, still better, a rheumatic fever, with acute or sub-acute catarrh, gastro-enteric, bronchial, etc. In consequence of the recent study of micro-organisms, the diagnosis of fevers has undergone modifications, and the division between ephemeral and continuous fevers has disappeared, and there has been substituted a gradation of typhoid fevers.

These maladies of long continuance are often associated with intermittent malarial fever, the symptoms of which rarely escape the experienced eye of the Roman physician. Such complications, if not recognized and properly treated, may endanger life. This is the rock upon which foreign practitioners

are stranded—they do not know how to distinguish these complications. In consequence, they have conceived the idea of "Roman fever."

The maladies prevalent in Rome are generally of a rheumatic and catarrhal, rarely of an infective type. If the latter prevail among strangers in the city, it is not the result of the climate, *per se*, but of their irregular mode of life, and of the disadvantages of not being subjected to a rational method of treatment.

Now, it may be asked with reason, what then is the rational treatment of these diseases among foreigners? The first thing to be done is to remove the causes which have favored the malady. If rheumatic causes, and dietetic errors have been the chief factors in determining this, diaphoretics, laxatives, sedatives, possibly oily mixtures, tepid baths, corrective draughts, a well-regulated diet, etc., should be prescribed. This mild method of treatment has almost always been found successful in these cases, which I have rarely seen degenerate into infectious, or, as they are now called, typhoid fevers. Their course has been mild and brief, ordinarily not lasting more than two weeks. In more serious and complicated cases the therapeutics must be modified. In cases of sub-acute or acute bronchial catarrh, bronchitis, pleuritic pains, pleurisy, pneumonia, the curative treatment should be directed towards the modification of the phlogistic condition, so as to assist the resolution of the malady.

Experience shows not only that polypharmacy cannot well be borne in our climate, but also that it is positively hurtful to the patient. It is a grave error, under these morbid conditions, to permit the use of alcohol and other stimulants, as is often done by those who in their efforts to help their patients, do not take sufficiently into account either the causes which have produced the illness or the climate which has augmented it. The old sentence, *medicina tota prudentia est*, is often forgotten, and instead of regarding the physician as *naturæ minister*, he considers himself the *Imperator*.

The forms of disease which I have mentioned are those which ordinarily prevail among the strangers visiting Rome, diseases common to every country. Among those, however, who are established in Rome, or who reside there the greater part of the year, or who spend the winter season there, these forms of disease do not often occur. It does happen, nevertheless, that some among these fall ill in consequence of abusing their strength and exposing themselves to influences which have their natural results in rheumatism, tonsillitis, bronchial catarrh, etc. When young and delicate individuals, or those suffering from constitutional disorders, are attacked by these maladies, the consequences are often deplorable. But no fact is better established than that the greater part of the strangers residing in Rome improve in health, the sufferings for which they have sought its favorable climatic influences diminishing, so that they depart showering benedictions upon Rome and all Italy.

There is then no such thing as "Roman fever;" the illness of a few among the many visitors who come to our city is owing to conditions peculiar to themselves, and not to the climate of Rome, or that of any other city. They fall ill wherever the forces of nature fail.

PRESCRIPTION-WRITING.

BY WINSLOW ANDERSON, M.D.,
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Success or failure in life often depends on a want of attention to the *minutiæ* appertaining to one's chosen vocation.

Out of several thousand prescriptions examined at any of our leading drug-stores, very few will be found to correspond to the maxim of the Greek physician, Bithynus Asclepiades, upon whose foundation we have been building our prescriptions for nearly 2000 years, "*curare cito, tuto et jucunde*"—cure quickly, safely and pleasantly.

Prescription-writing seems to be a lost art. Possibly the fault can be ascribed to those medical schools in whose curricula it does not receive its merited attention.

Leaving aside the chirography and hieroglyphics of special coinage, and the phraseology indigenous to the alumni of the Æsculapian Temple, which are generally so legible that if a drug clerk can read one or two words in the recipé, he will be obliged to guess at the rest, put up the prescription and compliment himself on the success of his translation.

The most frequently committed errors in prescription writing may be classified under four heads, viz:

1. Improper admixture of Latin and English.
2. Improper use of genitive endings.
3. Faulty and ambiguous abbreviations.

4. Incompatibilities.

1. You frequently observe a Latin noun with an English adjective, and *vice versa*, even in printed prescriptions in medical works. Also one drug in Latin and the next in English, as shown in the following copy:

℞ Quininæ sulphate.....3ij
Acidi hydrochlorate.....3ss
Syr. liquorice.....3j
Aquæ, q. s. ad.....ʒiv
M. Sig.—Teaspoonful every 3 hours.

2. Genitive case.

As Latin is the language used for prescriptions, owing to the many well-known advantages it posseses over all other languages for this purpose, it is well for physicians to bear in mind that all the names of the medicines, with all their adjectives, used in the body of the prescription should be put in the genitive case when the quantities of them are expressed.

With very few exceptions, the following simple rules will be found universal for pharmaceutical names:

(a.) All nouns ending in *a*, form the genitive in *æ*.

(b.) All nouns ending in *us*, *um*, *os*, and *on*, form the genitive in *i*.

(c.) *As* becomes *atis*, *is* becomes *idis* or *itis*, *o* becomes *onis*, *x* becomes *cis*.

(d.) All other pharmacopœial nouns form the genitive in *s* or *is*.

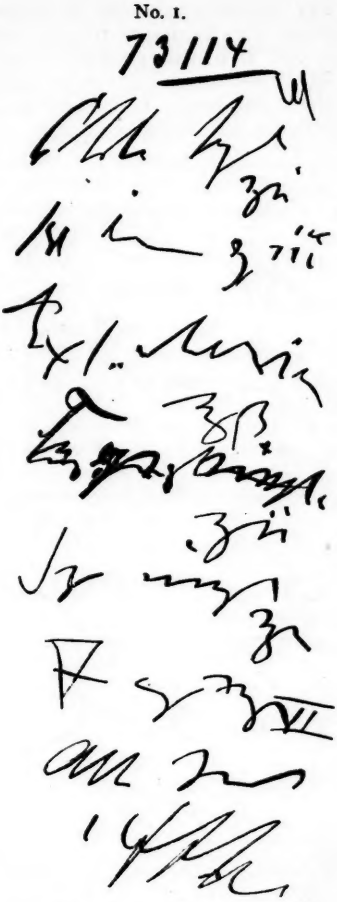
Improper use of genitive:

℞ Sodii bicarbonate.....3j
Bismuth subcarbonate.....3ss
Liq. calcis.....ʒj
Aquæ, q. s. ad.....ʒiv
M.—Take one teaspoonful after each meal.

3. Abbreviations should be correctly used or not at all. To be sure, the temptation is very great when we are busy, but it should be remembered that a drug clerk cannot dêvine what is wanted and has the prescription only to go by; and perhaps the life of a human being depends upon an improper abbreviation; therefore we cannot be too careful. Several deaths in this city have been attributed to the stupidity of apothecaries' clerks or criminal carelessness of the prescriber.

The following *original* prescriptions were written by a physician of this city, who enjoyed a lucrative practice for many years and is now deceased. They illustrate the dangerous habit of ambiguous abbreviations and peculiar hieroglyphics:

No. 1.



TRANSLATION OF NO. 1.

℞ Chloralis.....3ij
Potassii bromidi.....3iij
Extracti valerianæ fluidi.
Tincturæ gentianæ.....āā.ʒss
Syrupi aurantii.....ʒj
Aquæ. q. s. ad.....ʒvj
Misce et fiat solutio.
Signa —One tablespoonful at night.

DR.

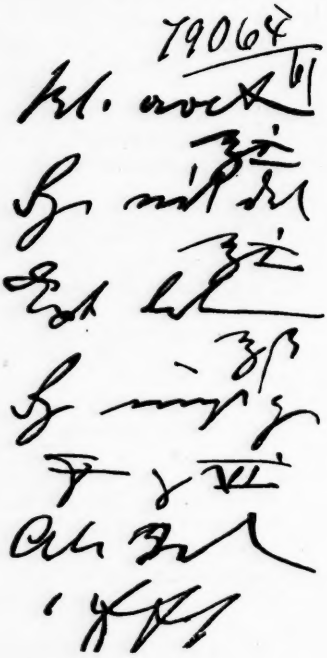
These and many other imperfect abbreviations should be carefully avoided:

Hydroc. may mean acidum hydrochloricum, or acidum hydrocyanicum. Hydra. chlor. may be either hydras chloralis or hydrargyri chloridum. Sulph. will stand for sulphas, sulphidum, sulphuris, sulphuratum or sulphurous, and so with many others.

4. Incompatibility in prescribing is of much greater importance than is generally supposed. Pharmaceutically considered, it gives rise to many annoyances little thought

of. For instance, solutions of borax and tincture of the chloride of iron, or syrup of acacia and iron will coalesce, forming a jelly-like mass, which cannot be poured or handled in any way. The patient to obtain his medicine must break the bottle.

No. 2.



Therapeutical incompatibility prevents a proper physiological action of the drug given. Many times we are disappointed in the action of a drug, all the while forgetting that it is our own fault, having combined it with some antagonist. Alkaloids, for example, are precipitated by alkalies and rendered inert by tannic acid or vegetable drugs containing tannin, forming insoluble tannates. Tinctures contain resins, spirits contain oils, hence are *not* miscible *with water*, and yet fully one-half of all prescribers will use water as a vehicle for tinctures. Fluid extracts are generally miscible with water.

Chemical incompatibility is the most important, as dangerous compounds are formed. Hydrocyanic acid or potassic cyanide with metallic hydrates or carbonates will form poisonous compounds. So will potassic iodide with potassic chlorate.

We have all witnessed syrup of squills and ammonia carbonate mixed, with the sequence of blowing the cork out or breaking the bottle, due to the formation of CO_2.

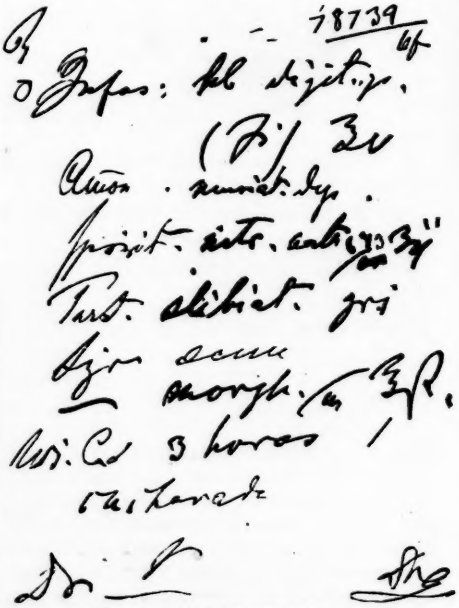
Pepsin should be given with acids and not with alkalies or carbonates.

Plumbic acetate is incompatible with zinc sulphate. In prescribing potassic iodide with bichloride of mercury, you form iodide of mercury, the strength depending upon the amount of the one or the other salt present. Poisonous compounds are formed by mixing together arsenic, iodides and a salt of mercury, and yet this is a standard mixture employed by many physicians.

Many prescriptions I have seen were composed of tinctures and vegetable drugs containing more or less tannic acid and preparations of iron; several of them would give you very good writing inks.

The following is one of our *legible* prescriptions, written by a prominent physician. It might be much improved upon as far as compatibility and simplicity are concerned:

No. 3.



TRANSLATION OF NO. 3[1]

℞ Infusi (foliorum?) digitalis.....℥v
Ammonii chloridi
Spiritus ætheris nitrosi.....āā ℥ij
Antimonii tartratis.....gr. j
Syrupi sennæ
Syrupi morphinæ (?).....āā q. s. ad. ℥vj
Misce et fiat solutio.

Signa.—One teaspoonful every three hours.

Dr. ——

[1]The difficulty of translating the prescription may be appreciated by the fact that we would make the fifth ingredient *syr. scillæ* and not *syr. sennæ*, as the author does.—EDS. REPORTER.]

Prescriptions for liniments containing tincture of iodine, aqua ammonia and soap liniment, often used, will make iodide of nitrogen, which is explosive under certain conditions.

Gargles of chlorate of potassium, tincture of the chloride of iron and glycerine will explode if warmed.

Silver nitrate with creosote, occasionally used for steam atomization, may explode. Potassium chlorate with sugar or glycerine, tannin with permanganate of potassium, oxide of silver pills, chromic acid or nitro-hydrochloric, with oils and fats, sulphur or sulphides with chlorate of potassium, all form highly explosive compounds and should be avoided.

The stronger acids should be prescribed alone with proper diluents. Potassium iodide, chlorate and permanganate, corrosive sublimate, lead acetate, silver nitrate, the cyanides and nitro-glycerine should all be prescribed in simple solutions, and *mono* rather than *poly* pharmacy adopted.

Many rare gems of curious composition could be given, but want of space and prudence forbid.

In conclusion I would urge medical men, students and professors to pay more attention to prescription writing. The time has happily gone by when it was considered learned and wise to write so that nobody could read it. Master the genitive endings, and by all means avoid abbreviations that are ambiguous and unintelligible. Oftentimes the only means a pharmacist, or indeed the public, has of judging of the qualifications of a physician is by his prescriptions.

OBLITERATION OF THE ORIFICE OF THE NOSE—OPERATION—RELIEF.

BY GILBERT YOUNG, A.M., M.D., OF PHILA.

The following case presented such a marked degree of deformity, and was so much relieved by a simple operation, that I think it not unworthy of being placed on record.

The patient, Mrs. ——, was about forty years old when she came under my care. She had contracted syphilis twelve years before, and in consequence of ulcerative lesions of the face, had suffered a deformity of the most pronounced character. Not only was her countenance so changed that her nearest friend could not have recognized her, but also great destruction had taken place within the nasal cavity.

The nasal bones and inferior turbinated, on both sides, as well as the cartilaginous septum and lower half of the bony septum, were completely gone—no opening or semblance of one remaining over the original site of the anterior nasal aperature.

An orifice, about three-quarters of an inch square, existed in the palatal processes of the superior maxilla, just posterior to their anterior, inferior juncture. Through this square hole the finger could be passed high into the nasal vault.

The soft palate, uvula and tonsils had not sloughed; but from the amount of aphonia present, I concluded there had been serious impairment of the vocal cords. An examination of the larynx was, however, rendered almost impossible, from the fact that the opening of the mouth of the patient, which was naturally small, had, by the inroad of the disease at this point, become diminished at least one-third of its original extent. The skin, too, of the entire central portion of the face, including the lower part of the forehead, the original site of the nose, both cheeks, and the upper lip, presented a thickened, corrugated, pink-and-white, streaked, cicatricial appearance.

Again, the patient was cachectic, requiring —perhaps from a neglect of sufficiently prolonged, early, constitutional treatment —frequent recurrence to alteratives, in order to keep her fairly well. Added to this, having for twelve years been so long required to breathe entirely through her mouth, her fauces were so irritable that she suffered of late, among other inconveniences, from most alarming attacks of spasm of the glottis. These were repeated so many times daily and nightly, and were so prolonged, that she was gradually wearing out, and an immediate operation of some kind seemed demanded for her relief.

On the second of June, without anæsthesia, I made as long a vertical incision in the median line, over the site of the nasal fossa, as its space permitted. The tissues were about half an inch thick, and very hard. With my left index finger passed up through the opening in the bony palate (before mentioned) as a guide, I next made a horizontal incision on a line with the floor of the nares, at right angles with the first.

Into the opening made by pressing apart the two triangular flaps, I inserted a No. 20 (American scale) soft catheter, passing it well back into the posterior nares, and bringing its outer end, chimney-like, up to the forehead, fastened it there with adhesive plaster.

After wearing the catheter about a month, of course cleansing it frequently, the artificial canal to the anterior nares seemed well healed, and since then my patient has worn a well-fitting metal tube, with great comfort.

As an immediate result of this trifling operation, there was at once, has since been, and I hope will continue to be, an almost complete relief from the very distressing attacks of spasm of the glottis which she previously suffered.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Special meeting, September 19, 1887.

The President, Dr. J. Solis Cohen, in the chair.

The discussion upon Dr. Pavy's address on **"Some Morbid Conditions of the Urine,"** [1] was opened by

Dr. James Tyson, who said: It is needless to say how much indebted we all feel to Dr. Pavy for his remarks, and in the brief time allowed for discussion I desire first to say that I think we, in America, have passed through much the same transition in our views as to the import of albumin in the urine as has taken place in England. The fact is thoroughly recognized that albumin may be present without any serious import; but the explanation of these curious albuminurias is still unsatisfactory. There are a certain number of them which are clearly the result of diet, and may be called alimentary albuminurias, but that all cases cannot be thus explained is shown not only by the cases alluded to by Dr. Pavy, but also in those in which the urine on rising is free from albumin, but in which within an hour afterward the urine passed is albuminous, although no breakfast has been taken.

The crucial test for the determination of the gravity of an albuminuria is the presence or absence of casts. I have found that in these harmless albuminurias tube casts are invariably absent; and where there is a constant association of albumin and tube casts, it, of course, means renal disease, no matter how slight the general symptoms may be.

With reference to sugar, we also entertain much the same views. In my hands Fehling's solution has proved the most satisfactory test, although open to the disadvantages alluded to by Dr. Pavy. Much, however, may be done to preserve it; if the bottle is kept corked and in a dark place, the solution will keep for a much longer time. I have also obtained satisfactory results in this respect from a Fehling's solution in which mannite was substituted for the tartrate of potassium and sodium. I have found that the pellets made in this country rapidly spoil.

In reference to the treatment we largely agree. I am inclined to believe that certain sugars, and especially certain fruit sugars, are better managed by the diabetic than others. Thus I think that a patient may eat an apple, or even an orange, without much disadvantage, whereas the use of grapes is always attended with an increase in the quantity of sugar. The same is true of milk sugar. I am satisfied that milk is a good diet for most diabetics, although, of course, it is not a cure. The dietetic treatment is, for the most, efficient; but, so far as my experience with drugs goes, I am satisfied also that the preparations of opium, and especially codeine, are the most efficient adjuncts to the dietetic treatment. They are, however, open to the objection that they produce constipation, which almost always aggravates the other symptoms of diabetes.

Dr. J. W. Holland said: The remarks of the previous speaker have reminded me of my experience with glycerine as an organic medium in Fehling's solution. This makes a solution which keeps for a considerable time, although not indefinitely. At the Jefferson College laboratory we employ two solutions of definite strength, one containing the sulphate of copper, and the other Rochelle salt and the caustic potash or soda. These are mixed in equal quantities when it is desired to employ the test.

In the use of Dr. Pavy's quantitative test, I find one small objection—which can be obviated by extreme care—that is, if the solution is boiled in an ordinary capsule the ammonia will be driven off and reoxidation of the copper follows. If a flask is employed the ammonia will not escape so rapidly.

One form of pellet lately brought to my attention is the indigo-carmine pellet. This seems to keep indefinitely. It is composed of sodium carbonate and the sulphindigotate of sodium. It is a very sensitive test—even more sensitive than Fehling's solution.

Dr. Kleen, of Carlsbad, was introduced, and said: I had two years ago, under my care at Carlsbad, a most singular case. Mm. X., of Gothenburg, fifty years old, then consulted me, telling me that she was suffering with diabetes, that the illness had acci-

[1] See page 503 of the Reporter.

dentally been discovered the year before, and that she had then visited Carlsbad (1884) and consulted Professor Seegen (who since that time has retired from practice).

Mm. X., when I saw her, presented no symptoms of diabetes or of any other illness, except some nervous debility. I gave her a considerable quantity (100 grammes) of cane sugar, collected the urine for some hours, and afterward for twenty-four hours, but found no glucose in it. I did not succeed better after she had dined copiously on rice and other amylaceous food. I then pronounced her free from diabetes. I still kept the case under observation, however, and at last found, upon examining the urine two hours after a meal, which had ended with a large portion of sweet fruits (mostly pears), a small quantity of reducing substance. Both Fehling's and Nylander's (bismuth) solutions showed reactions corresponding to the one we got, with urine containing 0.1–0.2 per cent. of glucose. When testing the urine with polarization by the spectroscope, I found, to my utter surprise, a slight deviation *to the left*. The urine did not contain a trace of albumin. I was at a loss what to think of it, and submitted it to the test of fermentation. The same day, however, I received a letter from Prof. Seegen, stating that when the patient was under his care, her urine had contained much larger quantities (as much as 3 per cent.) of reducing substance, and that he had found that substance to be *levulose*. At the same time Professor Seegen sent me a supply of glucose, asking me to submit the patient to a test of her toleration of that substance. So I did, and found that portions of 100 grammes or more did not produce more than very small quantities of reducing substance in the urine—that substance, to judge from a very slight deviation to the left in a good instrument, being levulose.

Worm-Müller has proved that glucose, administered in large doses, passes to a certain (small) extent unchanged into the urine, even in healthy persons, while it passes to a much larger amount into the urine of the diabetic patient. He has also found that all the different species of sugar, administered in large doses, in a certain (small) proportion pass *unchanged* into the urine even of healthy persons, while in the diabetic patient at least some portion of them passes into the urine *transformed into glucose*. He believes in this latter circumstance to have found a difference, also, between persons suffering from real diabetes and those whose urine, while under ordinary diet with the common reagents, presents traces of glucose, or only now and then, under peculiar circumstances and in a passing manner, contains somewhat larger quantities of it.

This coincides with my own experience so far as it hitherto goes. Like all physicians who occupy themselves with researches in this direction, I find every year persons whose urine shows traces of sugar, and now and then—especially after strong emotions, after alcoholic excesses, or after very rich meals of mixed food (but generally, not after meals *exclusively* consisting of amylacea or of cane sugar)—in a passing manner, somewhat greater quantities of a substance which shows *all* the qualities of glucose. In these doubtful cases, I usually give a large quantity of cane sugar; and afterward often find no glucose—or only slight traces of it—in the urine, till I have boiled it with mineral acid, and thus converted a portion of the cane sugar that has passed over into glucose, whereupon I will find the well-known reaction of glucose. I consider these cases to be distinct from true diabetes, though it seems to me highly probable that they indicate a tendency to that disease, which others of larger experience than myself have also noticed—for instance, Professor Frerichs.

In the present remarkable case of levulosuria, I found that some portion of cane sugar passed unchanged into the urine. It seemed to me to be of great interest to find out how Mm. X. reacted against the other species of sugar, especially against levulose, which, with some reason, could be expected to pass over in larger proportion than in quite normal persons. I therefore had the wish to administer a large amount of honey (which is a mixture of glucose and levulose), and also to make a test with milk sugar; but Mm. X., who had heard that she should avoid sugar above all things, and who had an interest in her own case, only partly of the same nature as my own, did not wish to be submitted to further experiments, especially as I could not promise that they would be without some momentary influence on the urine. I can, therefore, only give the above description of the case, such as is always given by Professor Seegen, who first discovered it, but I am not without hope of being able in the future to give fuller information upon it.

I am decidedly of the opinion that the case is not, clinically speaking, strictly one of diabetes. If the substance had been glucose, it would have ranged among the large number of the above-named glycosurias con-

tinuing unchanged for a great number of years in healthy or nearly healthy persons. I was rather astonished at seeing Professor Seegen state that the urine once contained as much as three per cent. of levulose, but cannot doubt the accuracy of this most excellent observer. That the quantity has diminished so very much without any dietetic treatment, makes the case even more interesting than it otherwise would be. I allowed Mm. X. a tolerably good supply of starchy food, advised her only to avoid excessive use of them, and I have lately heard that the urine only now and then contains small quantities of reducing substance.

In the discussion on Dr. Lennox Browne's address on

"An Unrecognized Cause of Many Throat Ailments," [1]

Dr. CARL SEILER said:

I quite agree with the speaker, that the *globus hystericus* is rarely of purely imaginary origin. Some chronic inflammation of the upper part of the upper air passages usually acccompanies this distressing condition. As he truly says, pharyngitis is one of the most common causes of this symptom. At the same time the pharyngitis is to my mind, as a rule, the consequence of remote causes which may be looked for in one of three different directions—in a disturbance of the gastric system, in a disturbance of the respiratory function of the nose and naso-pharynx, and, finally, and most commonly in public speakers and singers, in a faulty use of the organ of voice. This latter condition is frequently met with in those who simply use the voice for ordinary conversation. The constant irritation thus produced leads to hyperæmia and chronic inflammation, which extends upward, rather than downward, into the trachea. In the treatment of the condition described, I think that little can be accomplished by the application of remedies to the apparent seat of the disease, but that the cause must be looked for and removed.

EDITORIAL DEPARTMENT.

PERISCOPE.

A Case of Traumatic Tetanus Cured.

Dr. Mayer makes the following communication to the *Allgemeine med. Central-Zeitung*, August 6th, 1887:

P. Reckert, nineteen years old, of strong physique, wantonly wounded himself on the point of his left forefinger in trying to break a china plate with his hands. On the evening of the third day after the wounding, the patient noticed, after being wet through by a cold rain, that he could no longer open his mouth. As this was accompanied during the night by painful contractions of the muscles of the neck and back, I was consulted next morning, and found the patient in the following condition: The teeth of the upper and lower jaw were firmly pressed together, so that I was only able with an effort to get the handle of a spoon between them. The expression of the face was grinning, as in risus sardonicus, through distortion of the muscles of the angles of the mouth. Swallowing was very difficult; speech stammering. From the mouth saliva constantly dribbled. The pupils of both eyes were very much contracted. At times there were very painful convulsions in all the muscles, so that the whole body was as rigid and immoveable as a statue. During these convulsions breathing was very difficult and entirely superficial. About thirty such convulsions occurred in the first twenty-four hours, though of different duration and intensity. After these symptoms, it could not be doubted that we had to deal with traumatic tetanus, which had been occasioned by cold. The patient, for the first fourteen days, was put upon fifteen grains of bromide of potash and fifteen grains of chloral alternately every hour, so that he took 180 grains a day of each. From the second day of the treatment the patient fell into a slumberous condition, while at the same time a diminution in the frequency and violence of the convulsions was noticeable. After fourteen days opisthotonos completely disappeared, and there only remained for some days longer a waxy rigidity of the chin muscles. From this time on the chloral was discontinued, but the bromide was continued in the same doses four weeks longer. On the forty-eighth day after being taken sick the patient was dismissed from treatment as completely cured, but for six months general weakness of the body and inability to work persisted.

Investigation into Cholera Infection Received Through the Blood.

The following are the conclusions arrived at by Prof. Guido Tizzoni and Dr. Guisepino Cattani, in a preliminary communication to the *Centralblatt f. d. med. Wissensch.*, August 13th, 1887:

1. That it is possible to obtain in animals infection in an acute form through

[1] See p. 506 REPORTER.

the injection of even a small quantity of the poison of cholera into the blood whenever the animals concerned yield the same conditions which are necessary for artificially calling forth infection in other ways.

2. That by injections alone, even copious ones, of cholera poison into the blood, no result is obtained.

3. That the comma bacilli that are injected into the blood are preserved there some time, and are still capable of culture after twenty hours.

4. After the lapse of a certain time, whose length varied in the different experiments, and after which the comma bacilli were no longer demonstrable in the blood, they still persisted in the peritoneal serum and in the organs, but, especially, in experiments covering some time, in the spleen.

5. The negative results which the contents of the intestines, the bile and the urine afford, prove that the comma bacilli that penetrate into the blood are not expelled from the latter in this way.

6. Although it may be further assumed that if death can be brought about through a small quantity of cholera poison, as was the case in our experiments, that this increase may occur in the blood; and, although upon the above-designated grounds it could not be proved, whether this increase occurred directly in the blood, or in other fluids of the organism, or in the organs, yet at the very least one may be permitted to doubt very much, contrary to the achievements of Hueppe, that this increase necessarily takes place in the intestinal contents as the place of least resistance.

7. Finally, we cannot avoid directing attention to the facts indicated by us of the constant passage of comma bacilli from the blood into the peritoneal serum, as well as of their presence in this fluid, even when they are no longer demonstratable in the blood itself, which would be sufficient to explain how, in acute cases of cholera, arising in the natural way, the comma bacilli, which have penetrated into the blood, pass from this at once into the serous fluids. We have proved this in one case by culture of the cerebro-spinal fluid itself.

Methylene Chloride as a Narcotic.

In a long paper upon this subject in the *Deutsche Medizinal-Zeitung*, August 22, 1887, Eichholz and Genther sum up their conclusions in the following propositions:

1. The preparation hitherto sold as methylene chloride is a mixture of chloroform and methyl alcohol.

2. This mixture of chloroform and methyl alcohol is to be preferred to chloroform for the production of narcosis.

3. The pure methylene chloride produces narcosis just as quickly and just as profoundly as both of the above named preparations, but is not so lasting in its action.

4. The action of the pure methylene chloride upon the circulation and respiration is, moreover, not so dangerous as the other two preparations.

Transmission of Tuberculosis by Flies.

Drs. Spillmann and Haushalter have made a communication to the French Academy of Sciences from which it appears that the common house fly probably plays an important role in the carrying of tubercle bacilli. These observers have been struck by the great numbers of flies who are in the habit of collecting about the spit-cups of consumptive patients in hospital wards. Having taken some of the flies, they placed them under a bell-glass, and after the flies had died they examined the excrement which had been left in the form of blackened tracks upon the sides of the glass, and found without difficulty numerous bacilli, which were also seen in the intestine. Now, as the flies are known to die under the walls, tapestries and carpets, after the drying of their bodies the tubercle bacilli become free again in the dust and can infect inhabitants of the room.

The authors therefore conclude that flies, as carriers of contagion, should be kept from phthisical spit-cups by covering the latter with a lid, and that flies should be carefully kept away from food and drink.—*Le Concours Médical*, September 3, 1887.

The Value of Turkish Baths in Diseases of the Circulation.

In a recent paper Frey records his experience as to the value of Turkish baths in patients suffering from disturbances in the circulation. He first of all determined the normal effects of such baths by observations on himself with special reference to their influence on the pulse, arterial tension, respiratory capacity, renal excretion, and body weight generally. According to these observations, the quantity of blood in the body is lessened by the free excretion which takes place through the skin and lungs; the body weight is reduced; and the work of the heart is in this way lightened, at the same time that its substance is better nourished by the improved quality of the blood supplied to it. The peripheral arterioles of the

body, too, become dilated and filled with blood, thus effecting a corresponding emptying of the vessels of the internal organs. At the same time albuminous bodies, and still more fat, become more rapidly broken up, the loss in weight being thus explained. Lastly, as the result of the alternate warm and cold douching, the vaso-motor energy of the vessels is increased, thus rendering them more capable of resisting any strain thrown upon them.

The good effects of the Turkish baths in disease find their explanation in these physiological considerations. Thus the diminution in weight is well illustrated in cases of *obesity*. By such patients the baths are extremely well borne. The only precaution necessary is that the cold douche ought not to be used in such cases, as the sudden shock produced, acting on a heart overloaded with fat, or the fibres of which may already have become fatty, may readily prove dangerous. In all cases it is important to have regard to this rule—that the sweating stage ought never to be continued after the pulse rises above 100. The diastole of the heart then becomes too short to allow sufficient time for the heart to nourish itself; and under such circumstances the effect of the bath is to weaken rather than to strengthen the cardiac action.

In cases of *aortic and mitral disease* dependent upon rheumatic affection and not the result of atheroma, the baths are also well borne. This effect is most marked in cases in which compensation is disturbed, with anasarca of limbs, failure in secretion of urine, and dilated right heart. So far from the pulse gaining in frequency under the influence of the bath, after the first ten to fifteen minutes it generally falls, remaining between 90 and 100 as soon as perspiration commences; it becomes softer, less tense, more dicrotic in character; visible arteries, *e.g.*, the temporal, are seen to distend; and respiration becomes freer, deeper, and sometimes even more slow. In the after treatment the cold douche is in the first instance to be avoided, a douche at the temperature of the body being used instead. The bath can be repeated daily, or on alternate days, according to the strength of the patient. As improvement goes on recourse is gradually had to colder douches, then finally the coldest of all may be freely used. The tone of the heart and vessels is in this way greatly improved.

In cases of *chronic Bright's disease*, where there is hypertrophy of the left ventricle, œdema of the legs, increase in albumin, and some failure in the secretion of urine, the baths also prove useful. It is necessary to have care in the use of the cold douche. By *emphysematous* patients, on the other hand, the Turkish bath is not well borne. In their case the use of the vapor-bath proves far more efficacious, and is often extremely beneficial. Lastly, in all conditions characterized by disturbances in the circulation dependent upon weakness, local or general, *e.g.*, œdema of the lower limbs or around joints, the result of general weakness, paralysis, rheumatic affections, etc., the Turkish bath proves of great value. It is, indeed, under such circumstances that the full effects of the baths in improving nutrition, and raising the general vaso-motor tone, are best observed.—*The Practitioner*, July 1, 1887.

Localized Facial Sweating.

Dr. Rice reports the following case to the *Brit. Med. Journ.*, August 20, 1887:

In the *Journal* of July 9th I see reference made to two cases of localized facial sweating. As it is there spoken of as being exceedingly rare, it may be interesting to your readers to know that I have a patient under my care at the present time who suffers from it in a marked degree. My patient is gouty, and he first noticed the affection after a sharp attack of gout some seven years ago, which appears to have affected his right ear, making him deaf for some time. The sweating is profuse, and comes on at any time; in fact, is generally present, the sweat pouring off the upper part of the right temple, and, when he is lying on his back, running into the right ear. Curiously enough during the present summer he has had suppuration of the right parotid, which at the present moment is not quite healed. In both the cases mentioned the sweating was preceded by parotid abscess; in mine the sweating preceded by many years the abscess. There appears to be no loss of sensibility in the skin from which the sweating proceeds, neither is the hair over the surface affected. It would be interesting to know of any further cases, and of the combination of localized sweating and parotid abscess.

Experiments on the Preventive Inoculation of Rattlesnake Venom.

Dr. Henry Sewall gives a detailed account of his experiments upon preventive inoculation of rattlesnake poison in the *Journal of Physiology*, August, 1887. The following is an abstract of his paper:

The venom used in these experiments was obtained from three specimens of the Massasanga, *Crotalophorus tergeminus*, one of the smallest of the rattlesnakes. The average length of the reptiles was about two feet. In order to obtain the poison the snake was allowed to bite the side of a porcelain dish while being held round the neck by a loop fastened to the end of a stick. The number and variety of the experiments performed were narrowly limited by the small amount of venom obtained. After the first extraction of poison, only one snake gave an additional amount; nor did artificial feeding with chopped meat induce a further secretion.

It was sought to artificially excite the secretion by stimulating with an induction current the exposed poison gland and its nerves. The results, on the whole, were negative, though in one instance stimulation of the gland was followed by a slight flow of venom into the capillary tube inserted in the poison duct, and each application of the electrodes caused a greatly accelerated blood-flow from the cut muscles which had covered the gland. The total amount of venom obtained was estimated to be about six small drops, though as part of it dried after extraction an accurate measure was impossible. The six drops of venom were dissolved in about 88 drops of glycerine, as recommended by Weir Mitchell[1], so that each drop of the glycerine-venom contained .068 drop of the pure venom. The venom was clear and greenish-yellow in color and decidedly acid in reaction. In preparing for an inoculation, the requisite number of drops of glycerine-venom were allowed to fall into a porcelain capsule and diluted with distilled water to such an extent that each animal should receive 15 minims of the mixture.

Mitchell and others have found that pigeons are peculiarly sensitive to the influence of rattlesnake poison, and these birds were therefore uniformly used in the experiments. The inoculations were made under the skin of the back by means of a hypodermic syringe.

In no case did death follow injection so rapidly as described in some of the experiments of other workers on this subject; this result may have been due either to the high dilution of my poison, or to its intrinsic composition. There appeared to be two well-marked periods within which death followed after inoculation with the venom; the shorter time was about 3 hours, and the longer 15 to 20 hours.

The first symptom of the action of the poison was invariably a weakness in the legs, inducing the pigeon to sit down or to move with a tottering gait when forced to rise. Complete paralysis of the legs follows a larger dose of the venom. The general health and appetite of the bird may remain apparently unaffected while the legs are nearly completely paralyzed. Another symptom of the poisoning is the apparently excessive lachrymal secretion. When a fatal dose of poison is given, the paralysis extends from the legs to the wings; the head rests upon the floor; the mouth is open and the respiration gasping, and, after a longer or shorter period of clonic convulsions, the pigeon dies.

Mitchell draws attention to the marked effect which the inoculation of rattlesnake venom has in rendering the blood incoagulable, in producing extensive extravasation from the blood-vessels and in hastening putrefactive decomposition with the formation of very offensive odors. None of these results could be verified, perhaps on account of the dilute condition of the poison with which this work was done.

Previous observers seem to agree that snake venom may be kept indefinitely without diminution of its virulence; but, in the absence of quantitative experiments to the contrary, I think my own results are valid as showing that rattlesnake venom preserved in glycerine undergoes a gradual deterioration in its power. On consulting the tabular statement of the experiments on prophylaxis (for which see the original), it will be seen that on Nov. 7th the fatal dose of glycerine-venom was two-fifths drop; on Dec. 2d it had risen to two-thirds drop; and on May 19th nearly one drop was injected into a pigeon without producing death. A yellow color, such as is occasioned by fat, marked the skin for a considerable area round the needle punctures. In some of the experiments the pigeons inoculated with the same amounts of venom were divided in two lots, those of one being preserved in a room kept fairly constantly heated to about 60° F., while the others were caged in an unheated room in which the temperature frequently descended to 0° F. The poison seemed to affect more seriously those pigeons preserved in the cold room.

A review of the foregoing table of experiments shows that repeated inoculations of pigeons with sub-lethal doses of rattlesnake venom produces a continually increasing re-

[1] "Researches on the Venom of the Rattlesnake." *Smithsonian Contrib. to Knowledge*, 1861.

sistance towards the injurious effects of the poison without apparent influence on the general health of the animals. On December 3d, when the fatal dose of glycerine-venom is less than ⅔ drop, 4½ drops, or about 7 times the fatal dose, were injected without the least effect into pigeon I. The efficiency of resistance against the venom gradually fails in the absence of fresh inoculation, as is witnessed in the case of pigeon I which is perceptibly weakened by the inoculation on January 6th of 3 drops of glycerine-venom, a little more than one month after 4½ drops had been injected without effect. Also on April 29th, nearly five months after the next preceding inoculation of 2 drops of the poison, III and IV were killed by inoculation, the one with 3 and the other with 2 drops of the poison. That the prophylactic effect of the repeated inoculations is persistent over the interval of five months is shown by the example of pigeon II, which on May 6th is uninjured by a fatal dose of the poison, and thereafter rapidly recovers its powers of resistance against the ill effects of inoculation with doses of venom much in excess of the fatal amount.

Book Reviews.

Insanity: its Classification, Diagnosis and Treatment. By E. C. Spitzka, M.D., President of the New York Neurological Society, etc. 8vo, pp. 423. New York: E. B. Treat, 1887. Price, $2.75.

One of the most interesting questions which have engaged the attention of alienists within the last few years has been the significance to be attached to the term "Monomania." In this discussion Spitzka has borne a most important part, and he may well regard with gratification the general acceptance at present of views which he contended for against the vigorous opposition of a considerable number of specialists in insanity. We congratulate him upon the appearance of the book before us, which presents the sum of his opinions on this as well as other phases of insanity in his characteristic sharp, crisp style. Spitzka's opinions are positively expressed, which is a great advantage to the reader when, as we believe is the case here, an author's opinions are sound. This book contains an admirable summary of the present knowledge in regard to insanity, and is a valuable contribution to the literature of the subject. We hope the next addition may be as creditable to the publisher as this one is to the author.

Differential Diagnosis of the Diseases of the Skin. By Condict W. Cutler, M.S., M.D., etc. 6¾ x 5½ in., pp. viii, 139. New York: G. P. Putnam's Sons, 1887. Price, $1.25.

This little book contains in parallel columns the symptoms of diseases of the skin which are liable to be confounded one with another. As an illustration of the way in which this is done, we may cite the presentation of "Measles," the symptoms of which are confounded with those of scarlet fever, rötheln, small-pox, roseola and erythematous syphilide. The statements of the author are founded upon the teachings of well known dematologists and are no doubt reliable. We believe the book is calculated to be helpful to those to whom the diagnosis of diseases of the skin is a puzzling matter; but it cannot take the place of good, systematic books on dermatology.

Literary Notes and Queries.

[In this column the Reporter will publish short items of literary interest and questions addressed to this Journal or its readers, and answers to them, in regard to any literary matters: books, authors, places and prices of publications, etc.]

—The first number of the *Revue Internationale Scientifique et populaire des Falsifications des Denrèes alimentaires* appeared September 17, 1887. It is published in Amsterdam, and edited by Dr. P. F. Van Hamel Roos, with the aid of a large number of co-editors in Europe and in North and South America. The object of this new journal—one number of which is to be issued every two months—is to diffuse information in regard to adulterations of food; what they are, how to detect them, and how to prevent or stop them. Such a worthy object must insure the sympathy of all good physicians and good citizens.

—*Ginn & Company*, of Boston, announce that it has been decided to establish a "Journal of Morphology," devoted principally to embryological, anatomical and histological subjects. Cordial promises of support have been received from many of the most eminent investigators in this department. The Journal will be edited by C. O. Whitman, Director of the Lake Laboratory, Milwaukee, Wis., and will be issued in two numbers a year, of 100 to 150 pages each, with from five to ten double plates. Subscription price, $6.00 a year. Single numbers, $3.50.

—*Messrs. Longmans, Green & Co.*, have established a Branch House at No. 15 East Sixteenth Street, New York. Among their recent publications they announce, "*The Health of Nations.*" A Review of the Works of Edwin Chadwick, C.B., with Biographical Dissertation by B. W. Richardson, M.D., and "*The Commonwealth*," A Series of Essays on Health and Felicity for Every-Day Readers, by Benjamin Ward Richardson, M.D., F.R.S.

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N. A. RANDOLPH, M. D.,
CHARLES W. DULLES, M. D., } EDITORS.

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A correct statement of the circulation of THE MEDICAL AND SURGICAL REPORTER is published in each number. The edition for this week is 6,500 copies.

THE NATURE OF TETANUS.

At the last International Medical Congress several papers were read, and interesting remarks were made, on the nature and treatment of tetanus. Certain of the speakers were inclined to accept the theory of the microbic origin of this disorder, and some seemed inclined to the view recently advanced by Verneuil that tetanus is naturally a disease of horses, and that it is communicated to man by association with them.

The first of these opinions has not a little evidence in its favor, although it is far from proved, and stands in apparent opposition to well-known clinical experience. Prof. Gaston, of Atlanta, took occasion to state some of the objections to the microbic theory of the nature of tetanus; and we think it worth while to make some comments of our own upon it.

The strongest arguments in favor of this theory depend upon the results of experiment. About a year ago, Rosenbach, of Göttingen, read a paper before the Fifteenth Congress of German Surgeons, in which he gave a summary of what had been done by others before him, and added an account of some experiments of his own. Carle and Rattone succeeded in producing tetanus in eleven out of twelve rabbits by inoculating them with the contents of acne pustules.

Nicolaier believed that the germ of tetanus was to be found in the earth, and he produced symptoms like those of tetanus in rabbits by inoculating them with the soil of a garden. Rosenbach took material from the frozen and gangrenous foot of a man suffering with tetanus, and inoculated two Guinea-pigs, which developed symptoms of tetanus and died in about twenty-four hours. Material taken from the seat of inoculation in these animals produced similar symptoms in four new Guinea-pigs and eleven mice. Cultivations of a bacillus, which Rosenbach isolated, proved active at his hands as far as the fourth generation. These experiments are, however, not so conclusive as some have thought. In the first place, the animals experimented upon are so sensitive to experimental inoculation that we cannot safely argue from them to human beings. In the second place, the specific germ described has never, so far as we know, been found in the tissues of human beings, and in the animals experimented on it has been found in entirely inadequate numbers. Again, the clinical history of tetanus is often irreconcilable with the germ theory, cases occurring idiopathically—without any presumable supposition of inoculation—and some developing so rapidly, and terminating in so short a time, as to preclude the idea of germ development sufficient to account for the phenomena. Nicaise has reported a case caused by dashing a glass of cold water in the face of an infant; and many of our readers have no doubt seen cases of trismus nascentium in which no germ infection could be rationally imagined. Other cases occur which cannot be explained except by attributing them to the effect of cold. Such a case came under the observation of the writer not long since. Still other cases seem to be, at least in part, the result

of strong mental impressions acting upon neurotic subjects. In fact, we believe that none of the theories offered in regard to the nature of tetanus is so weak and purely hypothetical as the germ theory.

The "equine theory," as it has been called, has found little acceptance outside of France, where it first saw the light. It rests upon assumptions which will not bear the most ordinary scrutiny. It may be that one or two French surgeons have found that patients with tetanus have been associated with horses, as grooms or stable-men; but we have no idea that such association could be traced to even a small proportion of the cases occurring all over the world. Certainly, the babies affected with trismus nascentium could hardly be put in the same category with the stable-men alluded to. Dogs are very prone to tetanus; but we believe no one has ever suggested that men get it from dogs.

On looking over the whole subject, we must come to the conclusion that we have as yet no sound theory as to the nature of tetanus, and must take care to avoid a hasty acceptance of plausible hypotheses in regard to it. Meanwhile, we must patiently study the phenomena of this disorder, in the hope that some day the difficulties which surround it may be overcome, and a correct opinion be established.

COLLEGE OF PHYSICIANS AND SURGEONS.

The new edifice for the College of Physicians and Surgeons, for the erection of which the late Wm. H. Vanderbilt gave half a million of dollars, was formerly opened on September 29, with addresses by Dr. J. C. Dalton, the President; Dr. C. B. Agnew and Dr. Barnard, of the Board of Trustees. The building stands opposite the Roosevelt Hospital, and extends clear through the block from Fifty-ninth to Sixtieth street. The material is of the best Haverstraw brick. In fitting it up special attention has been paid to the practical work for which it is destined, rather than to art or ornament, and yet the edifice is one of the handsomest of its kind in the city.

NOTES AND COMMENTS.

A Case of Occlusion of the Vagina with Retention of Menstrual Fluid.

Dr. C. J. Cullingworth, of Manchester, England, reports the following case in the *Med. Chron.*, September, 1887:

The case I am about to describe is of considerable interest, as being a typical example of the simplest and most common form of vaginal atresia.

Ann A., aged 19, single, a factory worker, residing at Moses Gate, near Bolton, was sent to me by my friend, Dr. W. E. Bradley, of Farnworth, on August 17th, 1886.

She was a strong, well-built, healthy girl, with the development natural for her age. She had never menstruated, nor had she suffered any inconvenience therefrom until a few weeks ago, when she had some pain in the lower part of the abdomen. Soon after this she perceived that the abdomen was swollen. The pain recurred the following month, and she then consulted Dr. Bradley, who forthwith examined her, and, recognizing her condition, suggested that she should see me at once with a view to operation.

When she presented herself at my rooms there was a tense, smooth, elastic tumor centrally situated immediately above the pubes, with a smaller and more solid body resting on its summit. On passing a finger into the rectum, a large tense elastic swelling was felt in front, bulging the anterior wall of the bowel backward. A bimanual examination proved this swelling to be directly continuous with that in the abdomen. The patient being placed on her back, with her knees flexed and separated, nothing unusual was observable in the appearance of the vulva until the labia were separated, when the vaginal orifice was seen to be occluded by a thick membrane, resembling mucous membrane in appearance, and bulging very slightly outwards. Through this membrane an elastic mass could be felt, continuous with that perceived in the rectum and above the pubes. On more close examination the hymen was found to be of its usual shape, spread out upon the outer surface of the membrane and intimately adherent to it. It was arranged that the operation should be performed on the following day at the girl's own home.

Accordingly at 4.30 P. M., on August 18th, the patient was placed on her back at the edge of a table, in a good light, with the knees flexed and separated. In accordance with her wish, no anæsthetic was given. Seating myself before the patient, I punctured

the occluding membrane by means of a Cock's curved trocar, which had been previously immersed in a solution of carbolic acid, and lubricated with carbolic oil. On removing the trocar a dark brown fluid, of the consistence of treacle, began to flow through the canula. No pressure over the hypogastrium was employed, or any other means of hastening the evacuation of the fluid. The stream continued to flow slowly and steadily for an hour and a half, at the end of which time it began to pass in drops only. I therefore withdrew the canula, and inserted a pair of small polypus forceps, opening the blades so as to dilate the aperture sufficiently to admit the finger. The vaginal wall was much hypertrophied; its mucous membrane felt perfectly smooth; the cervix uteri was not within reach. I now again enlarged the opening by incising its posterior margin on a director. The quantity of fluid removed during the operation was altogether 32 fluid ounces.

A strip of lint, saturated with carbolic oil (1 in 10) was placed in the vagina, and a large pledget of the same was laid over the vulva. The patient was then lifted carefully into bed. No douching was used, any fluid that still remained being allowed to trickle away gradually as the patient lay in bed. Orders were given to observe the recumbent posture absolutely for two days, then to be allowed to sit up, during meals and whilst passing urine, for purposes of drainage. A small glass dilator was to be introduced as soon as there was noticed any tendency to contraction.

On August 22d, Dr. Bradley writes, "The patient has not had the slightest untoward symptom; there has been no increase in the rate of the pulse or any elevation of temperature. Discharge somewhat copious until yesterday, when it almost ceased, so that to-day I managed to dilate the opening with my finger and inserted the glass tube." The discharge retained its dark treacly character for five days; it then became yellowish, and finally consisted entirely of mucus. On August 28th the patient left her bed in the afternoon, and on September 2d she was up to breakfast, and remained up all day. I saw her on September 13th at my rooms in Manchester. She was looking and feeling very well. She still wore the glass dilator, which she was able to pass herself, retaining it by means of a napkin. From this time she was told she might discontinue its use in the day time, but must wear it at night until Dr. Bradley thought it safe for her to discard it altogether. On August 25th, 1887, it being now exactly a year since the operation, the patient called upon me at my own request. She is perfectly well, and menstruates with a fair amount of regularity, and without any discomfort. For some months she wore the glass dilator every night; now she wears it about one night a week as a matter of precaution. On examination, the vaginal orifice is normal, the hymen remaining perfect. The shrivelled remains of the divided membrane can be seen behind the hymen, but are a source of no inconvenience. The vagina is of ordinary length; its walls are still destitute of rugæ, but are no longer hypertrophied. There is no trace of the abdominal swelling. The uterus is normal, both in size, position, and mobility.

Remarks.—The cases of which this is an example are often described as instances of imperforate hymen. The obstruction is, however, not at the hymen, but just behind it; the hymen frequently, as in this case, lying upon the obstructing membrane, and so closely adherent to it, as only to be with difficulty recognized as a separate structure.

The dangers attending the evacuation of retained menstrual fluid are well known; they are chiefly (*a*) rupture of one of the Fallopian tubes, which are often irregularly distended or sacculated by accumulations of blood in their canal; and (*b*) septicæmia. The former of these dangers is best avoided by evacuating the retained fluid slowly. It was with this object that I made a small opening at first, allowing the fluid to escape very gradually, and it was also this that influenced me in avoiding all pressure over the hypogastrium during the operation. The second danger is to be guarded against by careful antiseptic cleansing of fingers and instruments, and by the avoidance, as far as possible, of the admission of air into the vagina, both during and after the operation.

With regard to the desirability of washing out the parts after the operation with warm carbolized water, or other antiseptic solution, authorities are divided in opinion. My own observations have led me to the conclusion that in cases where no putrefactive change has taken place in the retained fluid, it is better to let it drain away of itself. This was the plan I adopted in the case above recorded, and certainly, no case could have progressed more satisfactorily. Whether the successful result was due, in any degree, to the avoidance of douching, or whether, as the advocates of douching would say, it occurred in spite of it, cannot of course be determined. One thing, however, is clear, namely, that antiseptic washing out of the vagina is not essential to uninterrupted recovery.

Uniformity in Obstetrical Nomenclature.

The committee appointed by the Section in Obstetrics of the Ninth International Medical Congress to formulate resolutions in regard to the above subject submitted the following report, which, after an animated discussion, was unanimously accepted, the only dissentient being Dr. Martin, of Berlin, who was not present, but had left a message stating that he thought the matter should not be settled by an American Congress, but should wait three years and be accepted or not by a congress meeting in the Old World.

A. It is desirable to try to attain to uniformity in obstetrical nomenclature.

B. It is possible to arrive at uniformity of expression in regard to: 1, The Pelvic Diameters; 2, The Diameters of the Fœtal Head; 3, The Presentations of the Fœtus; 4, The Positions of the Fœtus; 5, The Stages of Labor; 6, The Factors of Labor.

C. The following definitions and designations are worthy of general adoption by obstetric teachers and authors:

I. Pelvic Brim Diameters.—1. Anteroposterior: (1) Between the middle of the sacral promontory and the point in the upper border of the symphysis pubis crossed by the *linea terminalis* = *Diameter Conjugata vera*, Cv. (2) Between the middle of the promontory of the sacrum and the lower border of the symphysis pubis = *Diameter Conjugata diagonalis*, Cd.

2. Transverse: Between the most distant points in the right and left ileo-pectineal lines = *Diameter Transversa*, T.

3. First Oblique: Between right sacro-iliac synchondrosis and left pectineal eminence = *Diameter Diagonalis Dextra*, D. D.

4. Second Oblique: Between left sacro-iliac synchondrosis and right pectineal eminence = *Diameter Diagonalis Læva*, D. L.

II. Fœtal Head Diameters.—1. From the tip of the occipital bone to the centre of the lower margin of the chin = *Diameter Occipito-Mentalis*, O. M.

2. From the occipital protuberance to the root of the nose = *Diameter Occipito-Frontalis*, O. F.

3. From the point of union of the neck and occiput to the centre of the anterior fontanelle = *Diameter sub-Occipito-Bregmatica*, s. O. B.

4. Between the two parietal protuberances = *Diameter Bi-Parietalis*, Bi-P.

5. Between the two lower extremities of the coronal suture = *Diameter Bi-Temporalis*, Bi-T.

III. Presentation of the Fœtus.—The *presenting part* is the part which is touched by the finger through the vaginal canal, or which, during labor, is bounded by the girdle of resistance.

The *occiput* is the portion of the head lying behind the posterior fontanelle.

The *sinciput* is the portion of the head lying in front of the *bregma* (or anterior fontanelle).

The *vertex* is the portion of the head lying between the fontanelles and extending laterally to the parietal protuberances.

Three groups of presentations are to be recognized, two of which have the long axis of the fœtus in correspondence with the long axis of the uterus, while in the third the long axis of the fœtus is more oblique or transverse to the uterine axis.

1. Longitudinal: (1) Cephalic, including —vertex and its modifications; face and its modifications; (2) pelvic, including—breech; feet.

2. Transverse or trunk, including shoulder, or arm and other rarer presentations.

IV. Positions of the Fœtus.—The positions of the fœtus are best named topographically, according as the denominator looks—first, to the left or the right side, and second, anteriorly or posteriorly. When initial letters are employed it is desirable to use the initials of the Latin words.

In the case of Vertex positions we have:

Left Occipito-Anterior = *Occipito Læva-Anterior*, O. L. A.

Left Occipito-Posterior = *Occipito-Læva-Posterior*, O. L. P.

Right Occipito-Posterior = *Occipito-Dextra=Posterior*, O. D. P.

Right Occipito-Anterior = *Occipito-Dextra-Anterior*, O. D. A.

The Face positions are:

Right Mento-Posterior = *Mento-Dextra-Posterior*, M. D. P.

Right Mento-Anterior = *Mento-Dextra-Anterior*, M. D. A.

Left Mento-Anterior = *Mento-Læva-Anterior*, M. L. A.

Left Mento-Posterior = *Mento-Læva-Posterior*, M. L. P.

The Pelvic positions are:

Left Sacro-Anterior = *Sacro-Læva-Anterior*, S. L. A.

Left Sacro-Posterior = *Sacro-Læva-Posterior*, S. L. P.

Right Sacro-Posterior = *Sacro-Dextra-Posterior*, S. D. P.

Right Sacro-Anterior = *Sacro-Dextra-Anterior*; S. D. A.

The Shoulder presentations are (left and right side of the *mother*):

Left Scapula-Anterior = *Scapula-Læva-Anterior*, Sc. L. A.

Left Scapula-Posterior = *Scapula-Læva-Posterior*, Sc. L. P.

Right Scapula-Posterior = *Scapula-Dextra-Posterior*, Sc. D. P.

Right Scapula-Anterior = *Scapula-Dextra-Anterior*, Sc. D. A.

V. THE STAGES OF LABOR.—Labor is divisible into three stages: (1) First stage—from the commencement of regular pains till complete dilatation of the os externum = *Stage of Effacement and Dilatation.* (2) Second stage—from dilatation of os externum till complete extrusion of child = *Stage of Expulsion.* (3) Third stage—from expulsion of child to complete extrusion of placenta and membranes = *Stage of the After-Birth.*

VI. THE FACTORS OF LABOR ARE—(1) The Powers. (2) The Passages. (3) The Passengers.

(Signed) DE LASKIE MILLER, M.D.,
President of the Section.
A. F. A. KING, M.D.,
WILLIAM T. LUSK, M.D.,
A. R. SIMPSON, M.D.

—*Med. Record*, Sept. 17, 1887.

Alcohol in High Latitudes.

In spite of the discovery of so many new remedies and the discussion resulting therefrom, the main battle of argument is still waged about alcohol. Commission after commission has contributed its decisions, and still the question is unsettled. Recent decisive testimony upon one phase of it, however, has been given by General Greely, of Arctic exploration fame, and his recent utterances in the *Forum* are most timely.

The last half-century has witnessed a marked reduction in the amount of alcohol supplied to men engaged in exploration in the high latitudes. The experience of previous years has finally made itself felt in official utterance. In one of the recent British expeditions, Sir Alexander Armstrong, Medical Director of the Navy, expressly counselled against alcohol rations for regular distribution, and advocated in their stead the use of cocoa and tea, but the officers in charge saw fit to allow the men two ounces of rum daily and double that amount during the absence of the sun.

One-fifth of the officers and over one-half of the men suffered from scurvy.

In Greely's expedition the amount of spirits taken was calculated on the basis of four ounces per man weekly. In the long period of exposure to which the latter party was subjected, it was indisputably shown that spirits given on the march impaired resistance to cold. Given in small quantities after the day's work was over, they distinctly stimulated the mental faculties, without any unpleasant effects. This small quantity was generally about two ounces. More than this seemed merely a waste. In the later history of the expedition, it was recorded that one-fourth of an ounce of pure alcohol, diluted with three times its weight of water, had an equally pronounced effect. It seemed to supply food and to have a decided alimentary value. These results are what have been claimed for alcohol ever since its physiological effects have been critically studied. Their integrity has often been assailed by well-meaning but misguided enthusiasts, to whom anything concerning alcohol savors only of the powers of darkness. Upon them all argument is wasted.

General Greely's observations are valuable additions to our knowledge concerning alcohol. The facts which they narrate were indeed known before, but they have now received an authentic confirmation, and that, too, under the most trying circumstances.—*Med. Record*, October 1, 1887.

An Emulsion of Cod Liver Oil.

Emlen Painter suggests the following emulsion:

℞

Irish moss gelatine	40 grains.
Boiling water	5 fl. ounces.
Cod liver oil	8 " "
Syrup of tolu	2 " "
Alcohol	1 " "
Oil of sassafras	10 minims.
Oil of wintergreen	10 "
Oil of bitter almond	2 "

Dissolve the gelatine in the boiling water, taking pains to have it completely in solution; transfer the mucilage formed to a pint bottle; gradually add the oil in divided portions, and shake the bottle vigorously after each addition and until a perfect emulsion is formed; then incorporate the syrup, and lastly add the alcohol in which the essential oils have been previously dissolved, and shake well together.

If preferred, this emulsion may also be made in a mortar in the usual way, and it is probably better to let the mucilage become perfectly cold before proceeding further with the emulsion.—*Druggist's Journal*, September, 1887.

Ligation of the External Iliac Artery under Cocaine.

Dr. Howe presented at the meeting of the N. Y. Path. Soc. (April 13, 1887), the specimen taken from a man whose external iliac artery he had ligated. It was accompanied by the following history:

John W., aged twenty one, single, of Irish birth, and a boilermaker, entered the hospital January 18, 1887, complaining of severe pain in the right leg, and especially along the inner side of the thigh. It had begun five days before this, and was accompanied by numbness of the limb and severe pain on attempting to walk.

In September of the previous year he had suffered from an attack of typhoid fever. He had also several severe attacks of acute articular rheumatism, and for four years believed his heart to have been affected, although he had never suffered from it further than from slight dyspnœa on exertion.

There were no evidences of venereal disease, and no history of alcoholic excess.

On examination the heart was found to be acting strongly; the pulse-rate was about 90. There was a loud mitral regurgitant murmur, and also an aortic regurgitant. The lungs and the abdominal organs showed nothing abnormal. The urine was examined with negative results. Locally, nothing was found to account for the pain. The patient was in a fair general condition, although somewhat anæmic. There was a slight elevation of temperature daily.

On the 25th, the second and third toes were found to be livid, and the whole extremity was cold and somewhat swollen.

On February 1st, a slight swelling was noticed immediately below Poupart's ligament in the line of the femoral artery, and this rapidly increased in size. By the 15th, there was a swelling the size of a hen's egg, which showed pulsation and presented a well-marked bruit. Pressure could not be applied below Poupart's ligament, and was very badly tolerated above.

The circulation had improved in the leg, and there was less tendency to gangrene. The patient's general condition had grown worse, and morphine had to be freely used to secure relief from the pain. He was then transferred to the surgical side of the hospital for treatment. The aneurism still continued to increase very rapidly in size, and on February 27th, scarcely four weeks from its first appearance, the skin over it was livid and softened, and rupture of the sac seemed imminent. Without hope of permanently benefiting the patient, but simply to do away with the danger of sudden death from rupture of the sac, he ligated the external iliac artery, first, however, injecting into the subcutaneous cellular tissue, over the artery, fifteen minims of a four per cent. solution of cocaine. This quantity of cocaine sufficed to make the operation a painless one, excepting at its termination, when the edges of the wound had to be widely separated to get at the artery.

On the third day after operation there was free oozing from the wound, which was opened and a search made for bleeding points. Slight compression was all that was necessary, however, to control it. On the sixth the temperature rose to 104½°, and the abdomen became swollen and painful. The ligature came away on the ninth. He grew weaker rapidly, and on the tenth he died.

The autopsy showed the heart to be hypertrophied, and the aortic and mitral valves roughened and covered with vegetations. The pericardial sac contained a large amount of fluid. The lungs were congested. The intestines were distended. In the right iliac region, near the seat of operation, there were some fibrinous adhesions. There was no effusion. Both extremities of the ligated artery showed firm clots.

The points of interest in this case are first, the rapid development of a femoral aneurism in a young, bed-ridden patient; and second, the successful performance of the operation, without pain, by the use of cocaine as a local anæsthetic.

In this connection he wished to state that he had also amputated the mammary gland for scirrhus, in St. Francis Hospital, using during the whole operation forty minims of a four per cent. solution of cocaine. The operation was completed without pain, but at its termination the patient vomited. Whether this was the result of the cocaine or from shock, he was not prepared to say. These are the first cases of the kind on record where cocaine has been used instead of ether or chloroform.

Dr. Wyeth remarked, with regard to Dr. Howe's first case, that it was very unusual for constitutional effects to be developed by the injection of twenty minims of a four per cent. solution of cocaine, and he made this remark because he was so much in favor of the use of cocaine in surgery that he would dislike to have it discarded through fear to employ it. To be sure, it was not impossible for the effect mentioned by Dr. Howe to occur as a consequence of this moderate quantity, but as he had used the drug very extensively for the purpose of producing local anæsthesia, and had seen its unpleasant

constitutional effects produced in only one case, and that where a drachm of this solution became actually forced into the tissues, he believed that the cases in which such effects would be produced were very rare.—*Med. Record*, August 13, 1887.

Unusual Symptoms from Quinine.

Dr. Tsoukales reports in *Galenos* of June 20th, 1887, the case of a man of healthy antecedents to whom he gave twenty grains of sulphate of quinine in divided doses for a fever accompanying a severe attack of laryngitis. A short time after taking the first dose the man began to complain of a feeling of formication and numbness of the scrotum and penis. This passed off in a few minutes, and was followed by an intense itching, which persisted for about three days. The dartos of the scrotum was strongly contracted; the skin being drawn into tight folds. When the itching subsided, it was succeeded in some parts by a branny desquamation, but chiefly by fissures running parallel with the median raphé from the root of the penis to the perineum. These fissures also formed on the glans from the meatus to the corona. There was at first some bleeding from the cracks and then a purulent secretion. After the itching ceased the patient complained of pretty severe pains in the testicles. The fissures were healed, after the application of drying powders, in about a week. A week later another dose of quinine was given, and was followed by the same phenomena.—*Med. Record*, Sept. 3d, 1887.

A Case of Wellnigh Fatal Hemorrhage from the Conjunctivæ.

Dr. Pomeroy reports the following case in the *Med. Rec.*, Aug. 20, 1887: B. A——, a male child, from the middle walks of life, was born of healthy parents on April 30, 1887. The physician did not arrive until after the child was born. Mother had excessive uterine hemorrhage, which reduced her to an almost pulseless condition, and the most prompt measures were required to restore her. She, however, made a rapid recovery.

On account of the mother's requiring so much attention the child's eyes were not specially attended to until the next day, at about 12 M., when two drops of a two per cent. solution of arg. nit. in water were placed upon the slightly separated eyelids. The doctor thinks that not more than one drop came in contact with the palpebral conjunctivæ; this was at once neutralized with a solution of salt and water. The drops were applied from a spoon, and no laceration of the conjunctivæ resulted from opening the lids.

At once the most violent pain resulted, which continued for five or six hours, the child crying constantly during this time.

At about 7 or 8 P.M. a serous discharge was then noticed from the eyes, which in two or three hours became tinged with blood.

This continued as a slow oozing during the night, becoming more sanguinolent until about ten o'clock of the next day, when the doctor arrived. He found it to be now almost wholly sanguinolent. He at once used cold applications which, having no effect, were changed to hot. Neither of these succeeding, resort was had to digital compression. This arrested the hemorrhage during the contact of the fingers, but as soon as the fingers were removed bleeding recommenced. I arrived at 1 P.M. Compresses of absorbent cotton, with vaseline to prevent imbibition, were at once applied by means of a firmly applied bandage; this arrested the hemorrhage for an hour, but it again returned, first in one, and after a little in the other, when two more bandages were applied over the first. This controlled the hemorrhage until 6 P.M., when it again commenced. At 8 P.M. I again saw the patient, and found the bandage soaked with nearly or quite pure blood, clots readily forming beneath the eyelids.

Iced applications were now made with temporary success; this failing after an hour or an hour and a half, the upper lids were everted and touched with alum in substance. This did no good; the slow but persistent oozing of blood was startling to observe.

A compress was then applied very firmly, with sheet-rubber applied to the eyelids, knowing that blood *could not* soak into the cotton compresses. The bandage was applied very tightly indeed, the attending obstetrician reminding me that a child's head in the inferior straits was often compressed for hours with great intensity without harm. The bleeding now ceased.

This compress remained thirty six hours; on removing it, it was found that the left had not bled a particle, but the right had lost about half a drachm

The bandage was reapplied to the right for one day, when there was found to be no more hemorrhage. Blood-clots were found beneath each eyelid, but it was thought injudicious to remove them, and a bichloride collyrium was used.

On the next day the clots were found to have disappeared, and a saturated solution of

boric acid in water was ordered to be used twice a day.

The lids were now carefully inspected, and each upper lid showed that there had been a superficial slough. The retro-tarsal folds were considerably swollen, but the corneæ were perfect. Child opened the eyes readily; no photophobia; continued wash.

At the third day it seemed as though the child might die. The pulse was very feeble; patient extremely quiet; respiration weak; showed inability to nurse, for hours at a time, and when it did so only caught the nipple feebly. It was estimated that four ounces of blood had been lost. Stimulants were used, and in two days the child rallied satisfactorily, so that in a week there was no further trouble. The parents seem fairly healthy and strong; the mother, it is true, had serious post-partum hemorrhage, but there was no tendency toward being hæmophyllic, nor is there a history of anything of the kind in the family. The child only bled from the conjunctivæ.

I found it difficult for a time to believe that the collyrium could be the cause of the trouble; not more than a single drop touched the palpebral conjunctivæ, not a particle touched the globes on account of somewhat imperfect separation of the eyelids, and the prompt neutralization of the collyrium by a solution of sod. chlorid. still further rendered the application apparently safe. Three weeks after the instillation both upper eyelids exhibited a minute cicatrix.

I have made ineffectual efforts to obtain an exact examination of the solution, to determine whether it was properly dispensed. By the chloride-of-sodium solution I thought a more dense precipitate was thrown down than in the case of a solution known to be two per cent. It evidently was not *much* stronger than intended.

"Chichipate" and Cascara Amarga.

Plant Analysis as an Applied Science is the title of a lecture delivered before the Franklin Institute of Philadelphia last winter, by Helen C. De S. Abbott, for a copy of which in its published form we are indebted to the author. Among the personal observations mentioned—and it was to them that the lecture owed its value—is one of a Honduras plant called "chichipate," from which the author has extracted a yellow dye, *chichipatin.* Specimens of *Cascara amarga* having been sent to her from Messrs. Parke, Davis & Co.'s laboratory, where it had been found to contain an alkaloid resembling berberine, she came to the conclusion that the two plants were identical. "This incident is significant," she remarks, "as deciding by means of chemical analysis the identity of plants under distinct names from different regions."—*N. Y. Med. Journal.*

A New Explanation of Renal Troubles, Eclampsia and Other Pathological Phenomena of Pregnancy and Labor.

A. F. A. King (Washington) has written a long paper on this subject, and advanced a new theory of the renal affections of pregnancy. The paper does not admit of sufficient condensation to warrant its reproduction in this report by abstract; but all who are interested in the subject will do well to read the article in detail. Briefly stated, the author's theory is that "disturbances in the renal circulation and renal functions are produced chiefly by pressure of the gravid uterus upon the abdominal aorta or its branches, or upon the vena cava or its branches, or upon both or all of these, in consequence of the child and womb not maintaining during pregnancy their normal lateral obliquity above the pelvic brim." The author submits that the normal position of the uterus before the advent of labor is the lateral oblique position, and that "the normal presentation and position of the fœtus in utero during pregnancy, before labor begins, is the dorso-anterior position of an oblique presentation." He also declares that the normal position of the child and womb is "intrinsically the same in primiparæ as in multiparæ," and that it is abnormal for the fœtal head in primiparæ to enter the pelvis before the advent of labor. Dr. King then proceeds to show that "when the normal obliquity of womb and child is maintained during pregnancy, there will be no injurious compression upon any blood vessels."

The author's theory is ingenious and is modestly presented; he admits that his views are theoretical and only hopes that they may stimulate research which will verify or disprove them. While many will not now accept his premises, those who have large clinical facilities will do well to examine them with care and give them that clinical test which alone will determine their value. —*Boston M. & S. J.*, August 25, 1887.

—Dr. Austin Meldon writes to the *Medical Press and Circular* that he has for some years been treating tetanus with a combination of hyoscyamus, belladonna and conium. Seventeen cases have been treated in all, with thirteen recoveries and four deaths.

CORRESPONDENCE.

Papoid.

EDS. MED. AND SURG. REPORTER:

Sirs:—How shall I order papoid, if I want to use it? and where? and what will it cost?

Yours respectfully, R. S. W.

[Papoid is probably the same thing as papain. It is prepared under this copyrighted name by a firm in New York, and may be obtained from any druggist in Philadelphia at $2.00 per ounce, or about a cent per grain, in prescription. Papoid costs $3.00 per ounce, and probably more per grain than papain. In prescribing papain, or papoid, for internal use it may be dissolved in a mixture of equal parts of glycerine and water, or in either alone, or it may be ordered in capsules or cachets The dose for acid dyspepsia, or intestinal catarrh is from one-half to one grain for children, and from two to five grains for adults. It may be combined with an alkali, such as bicarbonate of soda. For local application, it may be dissolved in from five to ten times its weight of water, or simply rubbed up with enough water to make a paste, as recommended by Dr. Wilmoret in the REPORTER, Oct. 1, 1887, p. 441.—EDS. REPORTER.]

EDS. OF MEDICAL AND SURG. REPORTER:

Sirs:—On reading your editorial in the REPORTER for September 17th I am reminded of an accident in my own practice, which was due to carelessness on the part of the druggist. I prescribed, for a delicate young lady, a grain of calomel divided in eight powders, one to be taken every hour. The patient took three of the powders as ordered, in spite of violent pain and ineffectual efforts at vomiting. I was sent for, and soon had all I could do to rescue her from the effects of three doses of an eighth of a grain of corrosive sublimate.

The mistake occurred as follows. I wrote

℞ Hydrarg. chlor. mitis .....gr. j

Sacch. albæ.....grs. viij

M.—Div. in chart. No. viij.

Sig.—One every hour.

The druggist gave the prescription to his assistant to compound, and while he was doing this, called out to him in joke, "Are you sure you are putting corrosive sublimate in that prescription of Doctor ——'s?" At this, the assistant threw away the powders of calomel he had prepared; and deliberately made up a new lot with *corrosive sublimate substituted for the calomel!*

Such a mistake as this, if it had resulted fatally, would undoubtedly have subjected the druggist to a charge of manslaughter; and I am not sure but that it ought to have driven him out of the delicate business of pharmacy. Fortunately for all concerned, the results of his and his clerk's folly were only temporary, and the matter was not made public.

I publish this, hoping it may come under the notice of other druggists.

Yours respectfully, S. T. D.

EDS. MED. AND SURG. REPORTER:

Sirs:—I was interested in your editorial, in the September 17th number of the REPORTER, on "Accidents in Prescribing." Some mistakes are inexplicable except upon the hypothesis that the party making them must be insane, or his mind engaged on something altogether foreign to what he is doing at the time. If all of the mistakes were to go into print, I imagine we would be treated to a pretty constant succession of surprises. They have always been happening, and often will occasionally. It only behooves us to be more and more careful. I know a reputable physician who gave a patient a fatal dose of corrosive sublimate for potassium bromide. The fact was not published. Why publish it?—the harm had been done—he was suffering enough.

I don't approve of your Rule 2. Fancy that you had prescribed for a patient; the medicine had been sent labeled "poison;" a part had been given; and in the meantime the patient had unfortunately died. Fancy the nurse, a widow, with dyspepsia and strong religious convictions—such an one as Fothergill so aptly describes as the ghoul of the sick room—calling the attention of the friends of the deceased to the vial with the poison label, and telling them "that's what did it." Yours respectfully,

GEO. P. BLUNDELL, M. D.

Yazoo City, Miss., Sept. 23, 1887.

[The Rule 2, referred to, is one which we have followed in practice for years with great satisfaction. When accompanied with an explanation to the patient, or his nurse, that the medicine is safe in the dose prescribed, but dangerous if too much be taken, and that the word "poison" is only to prevent a mistake in taking it, the effect is to impress all concerned with the doctor's carefulness. We have never known it to work unfortunately.—EDS. OF THE REPORTER.]

Correction.

EDS. MED. AND SURG. REPORTER:

Dear Doctors:—Will you please state that the prescription found in my paper on "Vomiting of Pregnancy," in the REPORTER of September 24, should have included "Syrup. simp. q. s. ad. f℥iv," making it read:

℞ Potasss. nitrat.,
Potass. chlorat āā.....℥j
Ant. et potass. tart.....gr.j
Tr. ferri chlor.....f℥iv
Syrup. simp. q. s. ad.....f℥iv
M. S.—℥j every four hours.

Very truly yours,
Benezette, Pa. JAMES E. FREE, M. D.

NEWS AND MISCELLANY.

Native Medical Practice in Syria.

Dr. Ira Harris, missionary in Tripoli, Syria, writes the following interesting letter to the *Albany Medical Annals*, August, 1887:

You have no idea of the immense amount of work a medical missionary has to do in this country, of the droves of people who flock to the dispensary and with him on his tours over the country. It would require an iron man to do all the work. When I am in Tripoli, I refuse all the medical cases I can, devoting myself as much as possible to purely surgical cases, of which I have many.

In this limestone region we have many cases of stone. I agree with Dr. Vander Veer that supra-pubic lithotomy will never compete favorably with lithotrity. I prefer the lateral operation. I have removed some large stones, and have seen no serious symptoms follow. In all my stone operations I have only lost one case, and this one died because his people did not give him proper nourishment in my absence.

A few months ago I visited a large village among the Nusairiyeh. The village barber called on me. These men not only ply the art of removing the hair from their customers' chins and heads, but they remove various quantities of blood from their bodies; the more ill or week they are, the greater the quantity that is removed. They are also dosers of castor oil and sulphate of magnesia, no matter what the disease may be.

This man seemed to be very much interested in the operation of removing stone from the bladder, and in the various instruments I used. After the operation was completed, he said he liked his way best. "What do you know about removing stone?" I asked. "Oh, a little; I have removed over two hundred in ten years," was the reply. I was inclined to doubt this statement. The man called to a boy to bring the smallest box of stones he could find in his house. The lad soon returned with a box containing sixty-three stones, which he spread on the floor before us. The barber's face shone with pleasure at these evidences of his skill. The fruit was before us, even if the patients did not all recover from their removal. There were all kinds and sizes, uric acid and oxalate of lime calculi being the most numerous. Some of the latter were of immense size. They showed by their broken spines and battered appearance the efforts used in their extraction.

When I saw the stones, I knew I had the pleasure of meeting one of those professional "Arab stone extractors" I had read of in books. In response to a request to tell me the technique of the operation, he kindly did so. He was very familiar with the symptoms of this disease, gave me all signs, etc.

When he suspected stone, he passed his finger up the patient's rectum; sometimes his whole hand, and felt for the stone. When he was satisfied of the presence of the calculus, he would again place the patient in the usual position, having five or six men to hold the patient; no anæsthetic was given. The operator would again pass his finger up the rectum behind the stone, bringing it up against the perineum; then with a knife, curved at the upper two-thirds, he made an incision in the median line upon the stone. If the stone was small he would remove it with his finger; if large, he would pass behind the stone a hook and drag the stone away. The knife and hook were of the rudest character, made of an old file.

I asked him if he lost many patients after the operation. He replied that many died of exhaustion, but that he never lost a case of hemorrhage. Strange, when we think of the reckless way he plunged the knife into the perineum. The only thing that seemed to trouble him was the fact that the greater number of patients who recovered after the operation suffered from incontinence of urine or had a fistula. The people have had the utmost confidence in him, and were willing to suffer all the complications following his rude way of operating to be relieved of their misery.

Since the time I saw this man he has complained that I get all the stone cases, "all because the American doctor never loses a case by death, and all come home and make urine from the natural passages and at regular intervals." The principal reason for their coming to me is not so much the suc-

cessful result as it is the removing of the stone without pain. They have a supernatural reverence for an anæsthetic.

In this country one in every five has tape-worm. This is owing to the custom of eating so much raw meat and defecating in the open fields. Nothing disgusts an Arab so much as to see "Franks" use a house (water closet). They are in the habit of going up some unfrequented street, if in town; if in the country, just where they happen to be. Fancy having a dozen or two chickens and several dogs following you if you happen to step aside from the beaten path in the direction of a place where the villagers usually go when they wish to relieve nature; these are the scavengers. I call to mind seeing several chickens gorging themselves with the links of tape-worm. Ever since, I will not eat chicken unless I *know* they have not been raised in a country village. When I first came to Syria, I prescribed for these people the western doses, and failed every time. I thought perhaps the drugs were to blame. I sent for fresh drugs. I used everything I had read of, with very little success, until, in desperation, I gave larger doses. In fifty-five cases I have succeeded in removing the head of the tape-worm, and thus relieving the patients permanently of their unwelcome tenant.

I will give you the history of a case that will give my present treatment. Mrs. A. had been suffering from tape-worm for twenty-five years. She said that she had not been free from pain during that time. She ate immense quantities of food; appetite never satisfied. Has taken medicine from many doctors, only resulting in passing yards of tape-worm. I gave her Felix mas in doses I had been taught to give. She passed eighty-two feet of worm; afterwards the symptoms were worse. Three months after she began to pass the links. I gave her fresh extract of pomegranate root. She passed seventy-nine feet of worm. I wanted to give her fresh extract, but she would not consent, saying I did not know how to treat tape-worm. I made up my mind that I would kill that worm or I would make the woman dreadfully sick. I waited some time for a change. In the meantime I got some fresh ethereal ext. Felix mas—something I knew was good. I ordered the woman to eat nothing but milk for three days. On the night of the third day I gave her eight comp. cath. pills; the next morning at daylight, Felix mas ʒiis; in half an hour a second ʒiss; one hour after, castor oil, ʒj. Twenty minutes after, I had the pleasure of seeing a quantity of something that was once a tape-worm, now looking as if it had been used pretty roughly. The head was found after some search. With the removal of the head, all symptoms disappeared.

Since then, I have treated fifty-four cases, and have given in the greater number ʒiij of the drug. There seem to be two conditions to insure success—a few days of milk diet and a brisk cathartic, followed by large doses of *fresh* male fern. I have never seen any bad results following the use of this drug given in these doses. If I should have a case that did not succeed after the above treatment, I would give a third ʒiss sometime during the day. Of course, I would watch my patient for any ill symptom. But I do not apprehend any necessity of giving more than ʒiij of the drug, providing the diet has been strictly followed out and the drug is *fresh*.

Two weeks ago I visited a large village, where I found many cases of granular lids and other eye diseases. They told me of an "eye-wash" used here, made as follows: Take one onion, bruise it well, then add one tablespoonful of salt; mix thoroughly, then add eight ounces of water. Sig. gtt.x in each eye daily. I asked them if much pain followed the use of this remedy. They replied: "Of course; it would be of no use if it did not give pain."

It is fearful to see the qantity of nitrate of silver (they call it the stone of hell), sulphate of zinc and sulphate of copper that these people put in their eyes. I wonder that every person who has ever had anything the matter with his eyes is not blind, when we see the eye-drops they use.

Opium-Doctoring in Smyrna.

It is said that within the last few years the adulteration of opium has been pursued at Smyrna in a far more systematic manner than formerly, and the practice threatens to grow still further. About five years ago certain opium-dealers in Smyrna, after sundry experiments in kneading together old and new opium by applying vapor heat, secretly purchased machinery in England. By the aid of this apparatus they were able to mix opium on a considerable scale, and the product thus manufactured at first found a ready sale on most European markets. At present, it is said, nearly all Smyrna dealers who are in the habit of making firm offers to the principal markets are in possession of the kneading machinery, and turn out an opium consisting partly of the new product and

partly of two or three old juice. The opium thus produced has been exported in large quantities to the United States in order to save import duty; but probably this outlet will be closed in future, for the Customs authorities at New York have recently decided that no opium containing less than 9 per cent. morphia shall be allowed to enter the United States, and that shipments which do not come up to this standard must either be destroyed or re-exported within six months. The Chinese refuse to purchase the Smyrna mixed opium, and orders from Cuba or California frequently contain the stipulation that no kneaded opium shall be shipped. Consignments forwarded to Hong Kong and Singapore have also been returned to Smyrna. In England the Smyrna mixed opium is not unknown, but is not so largely sold here as on the continent. It is stated that, though in kneading opium by means of machinery, it is quite possible to bring the mixture up to a certain definite standard of morphia, experienced opium-buyers are always able to detect the compound.—*Chemist and Druggist*, August 27, 1887.

Prohibition.

In the *New Princeton Review* for September, 1887, Gov. Colquitt, of Georgia, in "Some Plain Words on Prohibition," makes an eloquent appeal for prohibition in the land, because it "has reason, religion, refinement, good order, and peace for its advocates and champions." He cites the case of Atlanta as a refutation of all objections.

A Tribute to Physicians.

Robert Louis Stevenson dedicates his just-published volume of poems, *Underwoods*, to "a few out of the many doctors who have brought me comfort and help." He adds: "There are men, and all classes of men, that stand above the common herd: the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarelier still the clergyman; the physician almost as a rule."

The Health of Jews.

Popular credence has always conceded to the Hebrew race the possession of great wealth; and while much has been said and written upon this subject, little attention has hitherto been directed to the general healthfulness which prevails among this community. The latter subject, however, has not been entirely neglected, for we read that in the Middle Ages much prejudice was excited against the Jews on account of their comparative immunity from epidemic diseases, and now-a-days ardent advocates of the total abstinence programme point with gratifying satisfaction to the sobriety which distinguishes the descendants of Abraham, among whom, as a race, the evil effects of alcoholic ingestion are supposed to be seldom seen. There are, of course, exceptions to every rule, but, if in this respect the Jews living in this country can be entitled to the honorable position which is accorded by the teetotal orators, we must admit that, in the midst of so much temptation, they merit some commendation for their abstinence. However, whether the fact can be attributed to their sobriety or to their exceptional prosperity, it is nevertheless somewhat surprising to learn that there can be little doubt that, as a whole, the Jews are hardly less fortunate in their physical condition than in their worldly circumstances, and that the descendants of Abraham are freer from fleshly ills than the common sons of Adam. A recent writer, at all events, has been at some pains to ascertain this fact respecting the Jews in the German Empire. He states that in Prussia from 1822 to 1840, the Jews increased by 3½ per cent. more than the ordinary population. In the town of Fürth, where the average duration of life among Christians was twenty-six years, among Jews it was thirty-seven years, and in Frankfort he observes that the average longevity of the Jews is eleven years in excess of that of the Christians. He also adduces statistics pointing to the same fact respecting the town of Algiers. One of the most remarkable instances of Jewish immunity from epidemics occurred about two years ago. During the prevalence of the cholera in the south of France, out of the large Jewish population which dwelt in the infected districts only seven persons succumbed to the disease. The Jewish race is one of characteristics; it is characteristically wealthy; characteristically, as we must believe, healthy, and characteristically—but we need not proceed further in this comparison, since various other features of the favored race will at once present themselves to the mind. Perhaps the most unaccountable side of the Jewish human nature displays itself in the presence of disease; for Jews can scarcely, as a rule, be said to be satisfactory patients. When the malady from which the patient is suffering resists the skill of the attending physicians or surgeons the utmost alarm begins to spread through the household, and a degree of lost-headedness comes

to be established from the patient downwards, which to sober-minded Gentiles is perfectly inexplicable. Whatever the cause of this condition of things may be we can well believe in its reality, for in cases where recovery follows, and the dire catastrophe has been averted, with justice it can be said that gratitude takes the place of consternation, and the family attendant may make his mind at ease regarding his fees.—*Medical Press and Circular.*

Anxious for Students.

Dr. Frederick H. Gerrish, Secretary of the State Board of Health of Maine, read a paper before the American Academy of Medicine, September 3, upon the requirements of a preliminary education by medical colleges of the United States, an investigation of which was undertaken on behalf of the Academy. Among the devices adopted to secure the information upon which the report is based was the following:

A little girl, 8 years old, whose handwriting, though fair for her age, betrayed the immaturity of the writer, made application in various forms and over fictitious names for admission to the different medical colleges. She confessed in each case, as she truthfully could, her lack of proficiency in natural philosophy, Latin, or some one of the natural sciences, a knowledge of which, according to the college prospectus, was required as a preliminary to admission. To their credit, the report says, one-half the replies indicated a purpose on the part of the institutions from which they came to rigidly adhere to the requirements of the advertisement and advised the applicants in various forms not to attempt the study of medicine until the proper foundation has been laid. But from the other half quite a different condition of affairs was developed. Expressions from several of the replies from this class of institutions were read and heartily laughed at by the assembled doctors. The following were a few of these expressions·

"Our examination is not difficult. No one has yet failed to pass."

"We do not propose to make entrance to our institutions a bugbear."

"Our preliminary examination is very simple."

"If you have a good common school education, as I see you have from your letter, you will experience no difficulty in entering."

"Natural philosophy is not required, except as a suggestion in the line of a liberal education."

"You need not be hindered by fear of the examination."

"The preliminary examinations are not difficult, and no deserving applicant is rejected on account of not being able to pass them. Call and see me when you are in the city, and I will fix it so you can enter."

"Never mind about the natural philosophy; that will be all right."

Dr. Gerrish's conclusions are as follows: "It appears that about one-quarter of our medical colleges make no profession of requiring any real preliminary education in their pupils; a few hint vaguely at the desirability of some knowledge, and about two-thirds announce an examination or its equivalent, as shown by a certificate. Of these the last half adhere to their pledges, and the other half evidently do not mean what they say. The actual standard is extremely low. A very few schools require a preliminary education which is somewhere near an equivalent for medical study. A considerable number exact a knowledge of the ordinary grammar school studies with a mere trifle of natural philosophy; the most will admit any male human being who can write an intelligible letter of inquiry and pay his tuition fees."

Opium Gathering.

"The opium gathering begins in January or February," said an East Indian (*New York Sun.*) "The poppy flowers have then given way to the seed pods, which are lanced in the afternoon. The thick gum, the opium, exudes from the cut made in the pod, and at daylight the entire family of a ryot are astir in the fields, scraping opium from the pods, the incisions being carefully closed again by rubbing the finger sharply up and down on the cuts, which glues them shut. If carefully treated the pods will respond liberally to six lancings. The opium is at first placed in brass vessels, and the dew that may adhere to it is drained off. Then it is kneaded like dough until it is at the proper consistency, when it is packed in new earthen jars and is ready to be carried to the weighing stations. The order to fetch in the year's crop of opium is generally given early in April, and that is the most interesting season of the year to the ryot and his family. Each farmer is notified that on a certain day he must be at the weighing station of his district for the testing and weighing. An entire village, men, women and children, join in joyous procession when this notice is received, and, laden

with the jars of opium, start for the destination. They travel only at night, as the heat of the sun is so great at that season of the year that the journey would be unendurable. All day they lounge in the groves and shady lanes, feasting and joining in various recreations. These wayside camps of the opium villages are picturesque sights to the traveler through these provinces. When a group arrives at the weighing station they are arranged in long lines before the examiner, who examines the opium of each one and marks the quantity and weight of each jar with a piece of chalk on the side of the jar. The examiners are experts, and can tell by the feeling whether a sample of opium is adulterated, but they put it to chemical tests as well. After the opium is all weighed and tested the different farmers receive the amount their yield entitles them to, less the government advances, and the gay procession takes up its march for home. The opium is forwarded to Calcutta in boxes, known as opium chests, and the insidious drug is ready to be sent on its mission of blessing to many and of misery to many more."—*West. Druggist*, August, 1887.

Items.

—Dr. Brouardel has called attention to the possibility of error in chemical examinations of human discharges, through the fact that ptomaines give color reactions that closely resemble those produced by the vegetable poisonous alkaloids.

—Dr. Gross describes his experiences abroad in detail in his book, and some of them are full of interest. Such are his meeting with Dr. Pusey, his breakfast with Sir Henry Holland, where he met Froude, the historian, and his conversation with an English lady at a dinner party in London. When he told her "that in the garden of one of my sons-in-law, near Baltimore, there were at that moment twenty-six culinary vegetables growing side by side," she threw down her fork, raised her eyes like a duck in a thunder-storm, and almost audibly said: "That is not true."—*Philadelphia Press.*

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from October 2, 1887, to October 8, 1887:

Capt. Wm. R. Hall, Assistant Surgeon, from David's Island to Ft. Custer, Mont.

Capt. C. E. Price, Assistant Surgeon, from Ft. Custer to Ft. Du Chesne, U. Ter.

First Lieutenant Wm. N. Suter, Assistant Surgeon, from Washington Bks. to Ft. McKinney, Wyo.

Capt. D. Weisel, Assistant Surgeon, from Ft. McKinney to Ft. Sill, Ind. Ter.

Major S. M. Horton, Surgeon, from Ft. Riley to Ft. Adams, R. I.

Major D. Bache, Surgeon, from Ft. Adams to Ft. Riley, Kan.

Major J. P. Kimball, Surgeon, from West Point to Ft. Elliott, Tex.

Capt. R. C. Newton, Assistant Surgeon, from Ft. Elliott to Ft. David's Island, N. Y. H.

Major C. L. Hirgmann, Surgeon, from Ft. Ontario to West Point, N. Y. S. O. 232, A. G. O., Oct. 5, 1887.

Capt. E. C. Caster, Assistant Surgeon, leave of absence further extended fifteen days. S. O. 231, A. G. O., Oct. 4, 1887.

First Lieutenant J. M. Cabell, Assistant Surgeon, relieved from further duty in connection with the competition of "Team of Distinguished Marksmen," at Bellevue Rifle Range, to take effect Oct. 1, and will return to his station, Ft. Omaha, Neb. S. O., 95, Dept. Platte, Sept. 27, 1887.

First Lieutenant J. M. Cabell, Assistant Surgeon, will be relieved from duty at Ft. Omaha, assigned to temporary duty with Battalion Sixth Infantry in the field.

First Lieutenant W. C. Borden, Assistant Surgeon, will be relieved by officer commanding troops, upon arrival of Assistant Surgeon Cabell, and will return to his station at Ft. Douglas, Utah. S. O. 98, Dept. Platte, Oct. 1, 1887.

Changes in the Medical Corps of the Navy for the week ending October 8, 1887:

Assistant Surgeon Wm. Martin, detached from Hospital, Norfolk, and granted sixty days' leave.

Medical Inspector N. L. Bates, detached from Naval Dispensary and to Examining and Retiring Boards.

Surgeon A. F. Price, ordered to the Naval Dispensary, Washington, D. C.

Surgeon J. R. Waggener, ordered to the Receiving Ship "Minnesota."

Surgeon Paul Fitzsimmons, detached from "Minnesota" and to the "Morion, Oct. 15.

Assistant Surgeon Louis W. Atlee, detached from Receiving Ship "Vermont" and to the "Morion," Oct. 15.

Passed Assistant Surgeon W. H. Rush, detached Coast Survey Steamer "Blake" and to the Navy Yard, New York.

Assistant Surgeon T. A. Benyhill, detached from "Minnesota" and to the "Blake."

Surgeon M. C. Drennan, detached from Naval Academy and to await orders.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, for the two weeks ended October 8, 1887:

Fairfax Irwin, Passed Assistant Surgeon, granted leave of absence for twenty-five days, Oct, 5, 1887.

John Guitéras, Passed Assistant Surgeon, granted leave of absence for seven days, Sept. 28, 1887.

Seaton Norman, Assistant Surgeon, upon expiration of leave of absence to rejoin station, New York, Oct. 4, 1887.